Community Health Assessment

Jefferson County, Alabama

ASSESSMENT, VISIONING, AND PLANNING
COMMUNITY MATTERS
FOR A HEALTHY JEFFERSON COUNTY

October 2019

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Community Matters

Community Matters: Assessment, Visioning and Planning for a Healthy Jefferson County is the process facilitated by the Jefferson County Department of Health (JCDH) creating Jefferson County's community health assessment and community health improvement plan. Community Matters utilized Mobilizing for Action through Planning and Partnerships (MAPP), a community-wide strategic planning tool for improving community health, as the framework for this work. MAPP enables the community to prioritize public health issues and identify resources for addressing prioritized issues.

JCDH completed the first comprehensive health assessment and improvement plan for Jefferson County, Alabama utilizing MAPP in 2007. After multiple stakeholder meetings and extensive local public health system partner engagement to develop these documents, the Health Action Partnership of Jefferson County was established in 2007 to collectively implement the community health improvement plan. JCDH initiated the county's second MAPP process, named Community Matters 20/20, in late 2013 resulting in the *Community Health Assessment of Jefferson County, Alabama* published in August 2014 and the *Community Health Improvement Plan Work Plan 2014 -2019* launched in November 2014. Community partners completed 96% of the 175 tactics within the *Community Health Improvement Plan Work Plan 2014 - 2019* within the five-year action cycle. JCDH initiated the third iteration of the MAPP process in Jefferson County in late 2018 to reassess current community health status, receive feedback from the community and identify next steps and direction for community health improvement.

The phases of the MAPP tool guiding Community Matters are shown in the center of Figure 1, while the four MAPP Assessments — the data collection mechanisms— are shown in the arrows surrounding the phases.

FIGURE 1

The first phase of MAPP, Organize for Success and Partnership Development, focuses on building commitment and engaging participants as active partners. This phase resulted in the seating of the MAPP Core Planning Team, a revised Partnership Directory including hundreds of agencies and over 500 individuals, and a detailed plan implementing the MAPP process.

The second phase of MAPP is Visioning. A shared vision and common values provide the framework for pursuing long-range community goals. A Community Health Vision Statement Survey was distributed in June 2018 to individuals and agencies through the Partnership Directory. Survey respondents were

asked to select from four draft vision statements or to create a new vision statement. Survey respondents overwhelming chose to retain the Vision Statement from the 2014 - 2019 MAPP process:

"Jefferson County Alabama is an inclusive, thriving community of healthy and connected people."

The following description of terms further defines Jefferson County's Vision Statement:

Inclusive reflects the purposeful invitation and acceptance of individuals from all backgrounds within the county - social, economic and cultural. No one is left behind.

Thriving describes the growth and flourishing of the community – economically, educationally, socially, culturally and in other dimensions.

Community represents Jefferson County as a whole: its cities, municipalities, unincorporated areas, neighborhoods and residents.

Healthy reflects the community's experience of physical, mental, social and spiritual well-being.

Connected describes people working together cohesively to support the improvement of the community as a whole.

The third phase of the MAPP is the four assessments which provide insight into the gaps between existing health status and quality of life in Jefferson County and the Vision Statement. The Community Health Status Assessment documents health status, quality of life and risk factors in the community. The Community Themes and Strengths Assessment gathers information from the community to provide a deep understanding of the health and quality of life issues residents believe are important. The Local Public Health System Assessment offers a comprehensive assessment of how well the local public health system delivers the 10 Essential Public Health Services. The Forces of Change Assessment focuses on the identification of trends, factors and events such as legislation, infrastructure, technology that create the context in which the community and its public health system operate.

While each of these assessments provides important information independently, taken together, the information from these four assessments provide a robust understanding of community health and quality of life and greatly inform the next phases of MAPP. This *Community Health Assessment for Jefferson County, Alabama* presents the results from the four MAPP Assessments conducted in 2018 and 2019. The Executive Summaries of the four assessment reports can be found at www.jcdh.org/SitePages/About/CommMatters.aspx.

The fourth phase of MAPP identifies strategic issues generated from analysis of data gathered during the four assessments. During this phase, results from each individual assessment are reviewed in relationship to the findings from the other assessments to identify the three to five strategic issues to be addressed in achieving the community's vision. Following identification of the final strategic issues, the fifth phase of MAPP formulates the goals and strategies for addressing each strategic issue by creating a five-year strategic plan for improving health, T*he Community Health Improvement Plan for Jefferson County, Alabama.*

The final phase of MAPP is the Action Cycle. The Action Cycle represents the five-year implementation and evaluation of the community health improvement plan which includes tactics, performance measures, lead partners and timelines.

The remainder of this *Community Health Assessment for Jefferson County, Alabama* provides the results from the four MAPP Assessments, including quantitative and qualitative data that may be used for further needs assessment and health and community planning for Jefferson County, Alabama.

Community Health Status Assessment

Jefferson County, Alabama

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Overview of the Community Health Status Assessment

The Community Health Status Assessment identifies and monitors quantitative data over time related to population demographics, health status, quality of life, mortality and morbidity, and risk factors, as well as social and economic determinants of individual and community health. The Community Health Status Assessment addresses the following questions:

- *How healthy is the community?*
- *What does the health status of the community look like?*

The Community Health Status Assessment identified 168 potential indicators of community health in eleven categories. Data were collected from the following categories: Demographic Characteristics, Socioeconomic Characteristics, Health Resource Availability, Quality of Life, Behavioral Risk Factors, Environmental Health Indicators, Social and Mental Health, Maternal and Child Health, Death, Illness and Injury, Communicable Disease, and Sentinel Events. With data from each of these categories, the Community Health Status Assessment provides a robust picture of the health and health status of Jefferson County, Alabama.

Demographic Characteristics include measures of the total population, as well as percent of total population by age group, gender, race and ethnicity, as well as descriptions of where these populations and subpopulations are located, and the rate of change in population density over time due to births, deaths and migration patterns.

Socioeconomic Characteristics include measures affecting health status such as income, education and employment, and the proportion of the population represented by various levels of these variables.

Health Resource Availability represents factors associated with health system capacity and includes both the number of licensed and credentialed health personnel and the physical capacity of health care facilities. In addition, the health resources category includes measures of access, utilization, cost and quality of health and prevention services.

Quality of Life (QOL) is a construct that "connotes an overall sense of well-being when applied to an individual and a community" (Moriarty, 1996). While some dimensions of QOL can be quantified using a supportive environment when applied to indicators, research has shown QOL to be related to the social determinants of health and community well-being. Other valid dimensions of QOL include the perceptions of community residents regarding aspects of their neighborhoods and communities that enhance or diminish quality of life.

Behavioral Risk Factors include behaviors which are believed to cause or to be contributing factors to injury, disease and death during youth and adolescence and to significantly impact morbidity (rates of the incidence and prevalence of disease) and mortality (rates of death within a population) in later life. Examples of these risk factors include tobacco use, obesity and utilization of health screening.

The physical environment directly impacts health and quality of life. Clean air and water, as well as safely prepared food, are essential to physical health. Exposure to environmental substances such as lead and hazardous waste increase risk for preventable disease. Environmental Health Indicators measure the health of the environment and the population's exposure to potential environmental hazards.

The category of Social and Mental Health reflects social and mental health factors and conditions directly or indirectly influencing overall health status, as well as quality of life. Mental health conditions and overall psychological well-being and safety are influenced by substance abuse and violence within the home and the community.

One of the most significant areas for monitoring and comparing the health of the overall population relates to the health of vulnerable populations including infant health and correlations with birth outcomes, such as measures of maternal medical care access and utilization. Maternal and Child Health indicators focus on pregnancy and birth outcomes, as well as morbidity and mortality data for infants and children. Because maternal health care is correlated with birth outcomes, measures of maternal care access and utilization are included. Live births to teen mothers are a critical indicator of increased risk for both mother and child.

Health status in a community can be measured in terms of mortality and morbidity. Mortality can be represented by crude rates or age-adjusted rates (AAM), by degree of premature death (Years of Productive Life Lost or YPLL), and by cause, for example, disease-cancer and non-cancer or injury – intentional and unintentional. Morbidity is represented by age-adjusted (AA) incidence of cancer and chronic disease. Measures of Death, Illness and Injury represent both mortality and morbidity rates for a variety of diseases.

Measures of Communicable Disease include diseases which are usually transmitted through person-to-person contact or shared use of contaminated instruments/materials. Vaccine-preventable diseases can be avoided through a high level of vaccine coverage in the population. Measures of sexually transmitted infections in populations and the use of protective measures such as condoms are indicators assessed in this category.

Sentinel events are those cases of unnecessary disease, disability or untimely death that could be avoided if appropriate and timely medical care or preventive services were implemented. These include vaccine-preventable illnesses, late stage cancer diagnoses and unexpected syndromes or infections. Sentinel events may alert the community to inadequacies in the local public health system such as inadequate vaccine coverage, lack of primary care and/or screening, a bioterrorist event or the introduction of globally transmitted infections.

The Community Matters Core Team of the Jefferson County Department of Health identified potential indicators within each of these eleven categories and identified data sources for each indicator,

abstracted data, evaluated the data for trends and prioritized opportunities for health improvement. The Community Matters Core Team included Carrea Dye, MPH; Sophia Hussain, MPH; Elisabeth Welty, MPH; Sonja Lewis, MSW, MPA; Bryn Manzella, MPH; Monique Mullins, MPH; and Greg Townsend, MPPM. The Community Matters Core Team met in fall of 2018 to review the 168 potential indicators and to identify potential data sources for the indicators of interest. Indicators from each category were reviewed to determine whether the data indicator was informative for Jefferson County and if a data source existed for that indicator. If an indicator was deemed to be informative and had an available data source, the indicator was included in the assessment.

Of the 168 potential indicators, the assessment captured data for a total of 146 indicators. Once data for each of the indicators had been gathered, the data were analyzed. Where adequate data were available, trends were evaluated to determine changes in community health status. Trends, patterns over time, such as increasing infant mortality rate, shifts in population distributions and changes in socioeconomic indicators were evaluated.

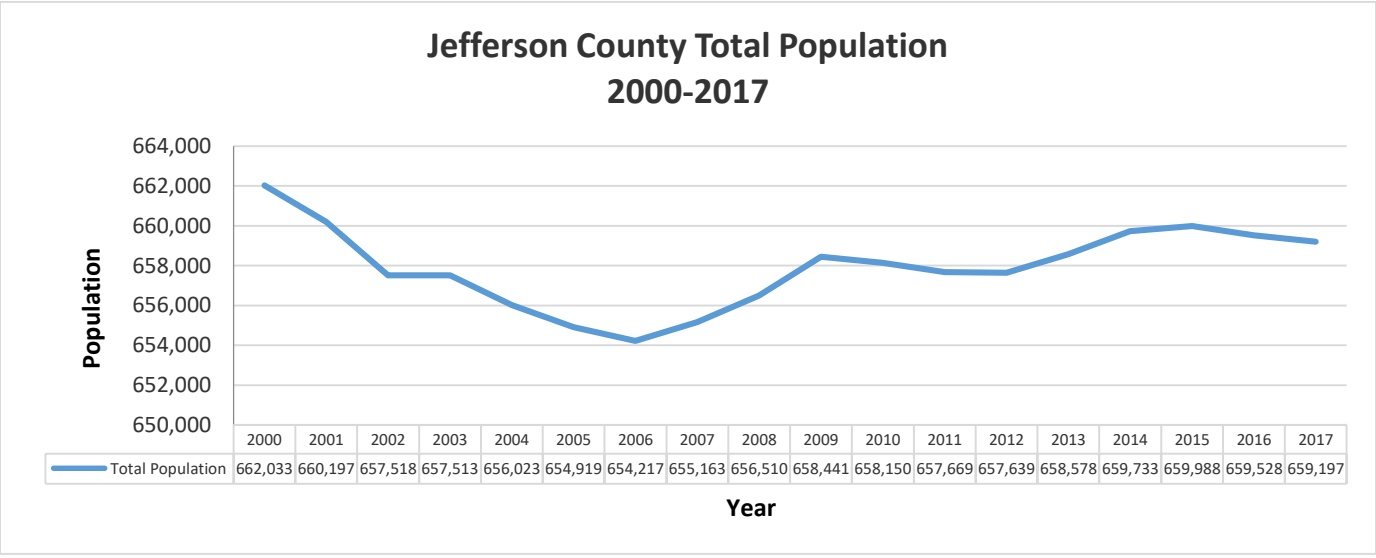
The remainder of the Community Health Status Assessment provides the evaluation of the 146 indicators of community health status in Jefferson County, Alabama.

Demographic Characteristics [1-10]

This first category of data presents the current and historic demographic profile of Jefferson County, Alabama. These data demonstrate population shifts and changes over time.

Overall Jefferson County Population

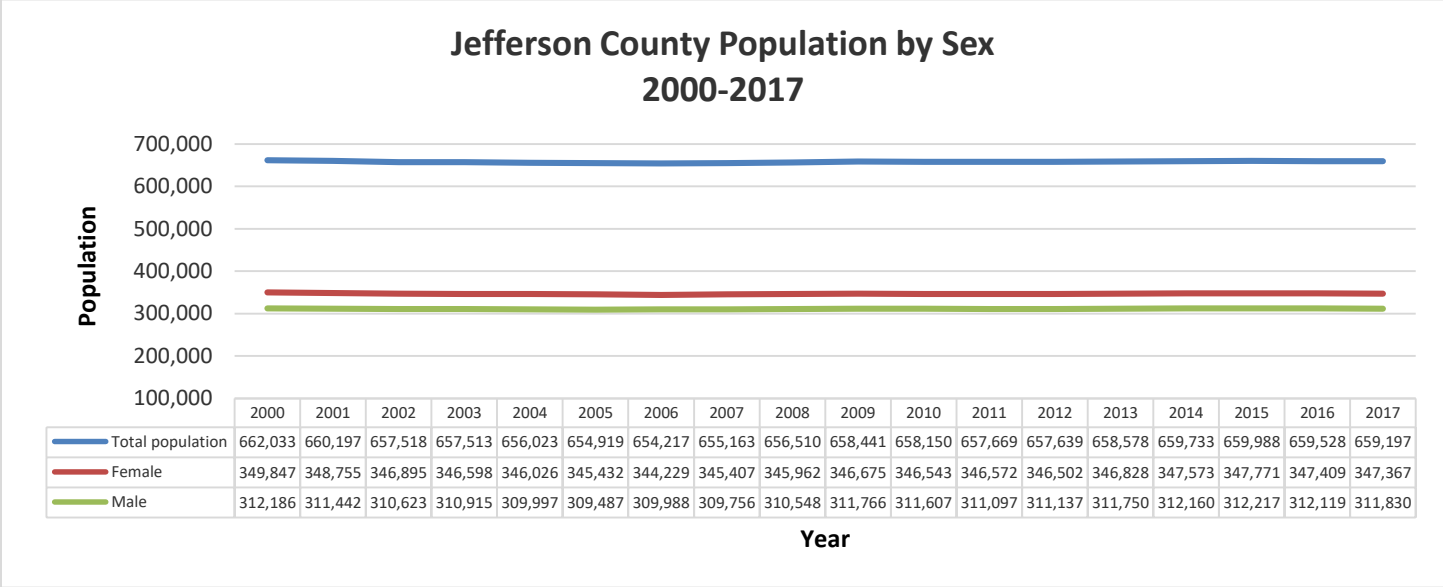
While the net change in the population for Jefferson County between 2012 and 2017 demonstrates a decrease of 0.1% (660,009 to 659,197), this is not reflective of the population change over the full time frame. The population fell steadily until it reached a low of 654,217 in 2006 at which point the population has steadily recovered.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Population	662,033	660,197	657,518	657,513	656,023	654,919	654,217	655,163	656,510	658,441	658,150	657,669	657,639	658,578	659,733	659,988	659,528	659,197

Jefferson County Population by Sex

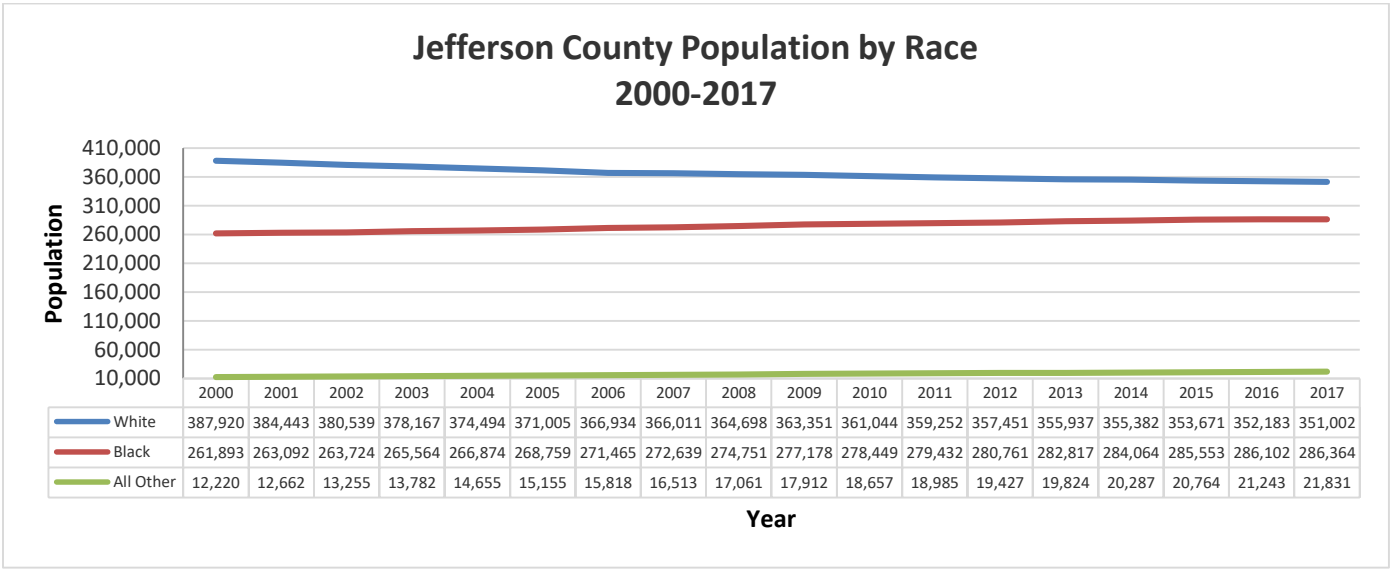
The percent of the population of Jefferson County that identifies as male remained stagnant at 47.3% in 2012 and 2017. The female subpopulation maintained stability at 52.7% in 2012 and 2017.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total population	662,033	660,197	657,518	657,513	656,023	654,919	654,217	655,163	656,510	658,441	658,150	657,669	657,639	658,578	659,733	659,988	659,528	659,197
Female	349,847	348,755	346,895	346,598	346,026	345,432	344,229	345,407	345,962	346,675	346,543	346,572	346,502	346,828	347,573	347,771	347,409	347,367
Male	312,186	311,442	310,623	310,915	309,997	309,487	309,988	309,756	310,548	311,766	311,607	311,097	311,137	311,750	312,160	312,217	312,119	311,830

Jefferson County Population by Race

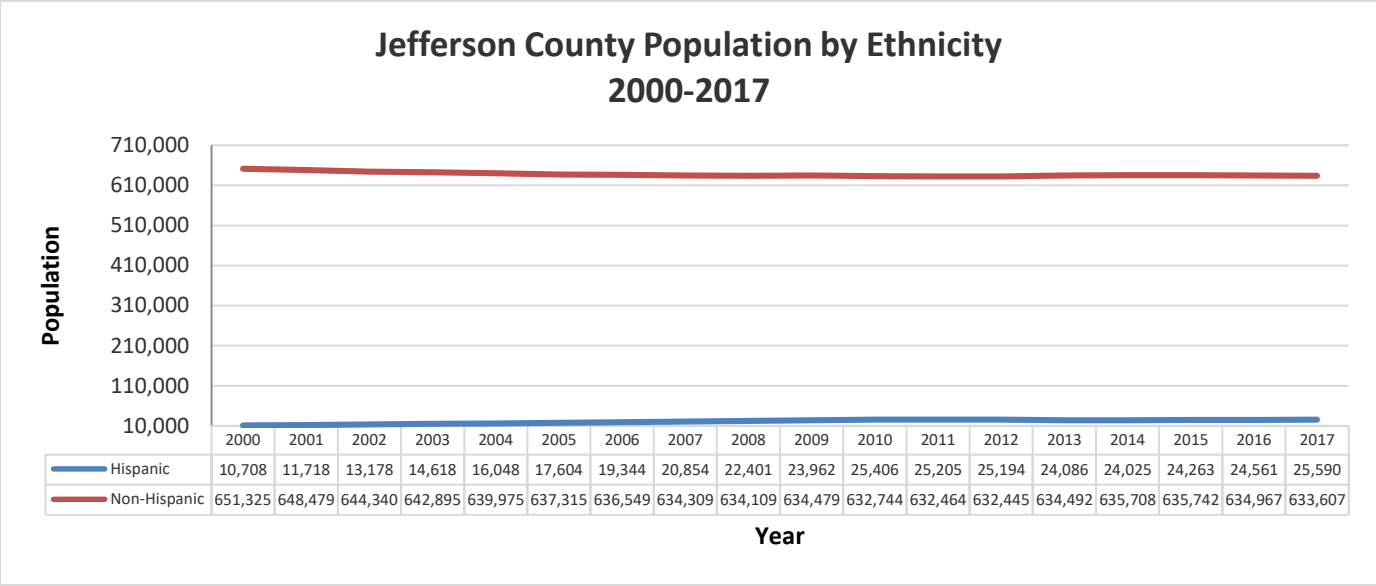
Since 2012, the white or Caucasian subpopulation of Jefferson County has decreased by 2.0% from 54.3% to 53.2% in 2017. The population of black or African-American increased by 1.9% from 42.6% in 2012 to 43.4% in 2017. The population of all other races increased by 6.5% between 2012 and 2017 from 3.1% to 3.3%. All other races include individuals from the following racial groups listed from the highest sub-population in 2017 to the lowest: 11,381 Asian, 8,148 Multi-racial, 1,919 American Indian/Eskimo, and 537 Pacific Islander residents of Jefferson County.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
White	387,920	384,443	380,539	378,167	374,494	371,005	366,934	366,011	364,698	363,351	361,044	359,252	357,451	355,937	355,382	353,671	352,183	351,002
Black	261,893	263,092	263,724	265,564	266,874	268,759	271,465	272,639	274,751	277,178	278,449	279,432	280,761	282,817	284,064	285,553	286,102	286,364
All Other	12,220	12,662	13,255	13,782	14,655	15,155	15,818	16,513	17,061	17,912	18,657	18,985	19,427	19,824	20,287	20,764	21,243	21,831

Jefferson County Population by Ethnicity

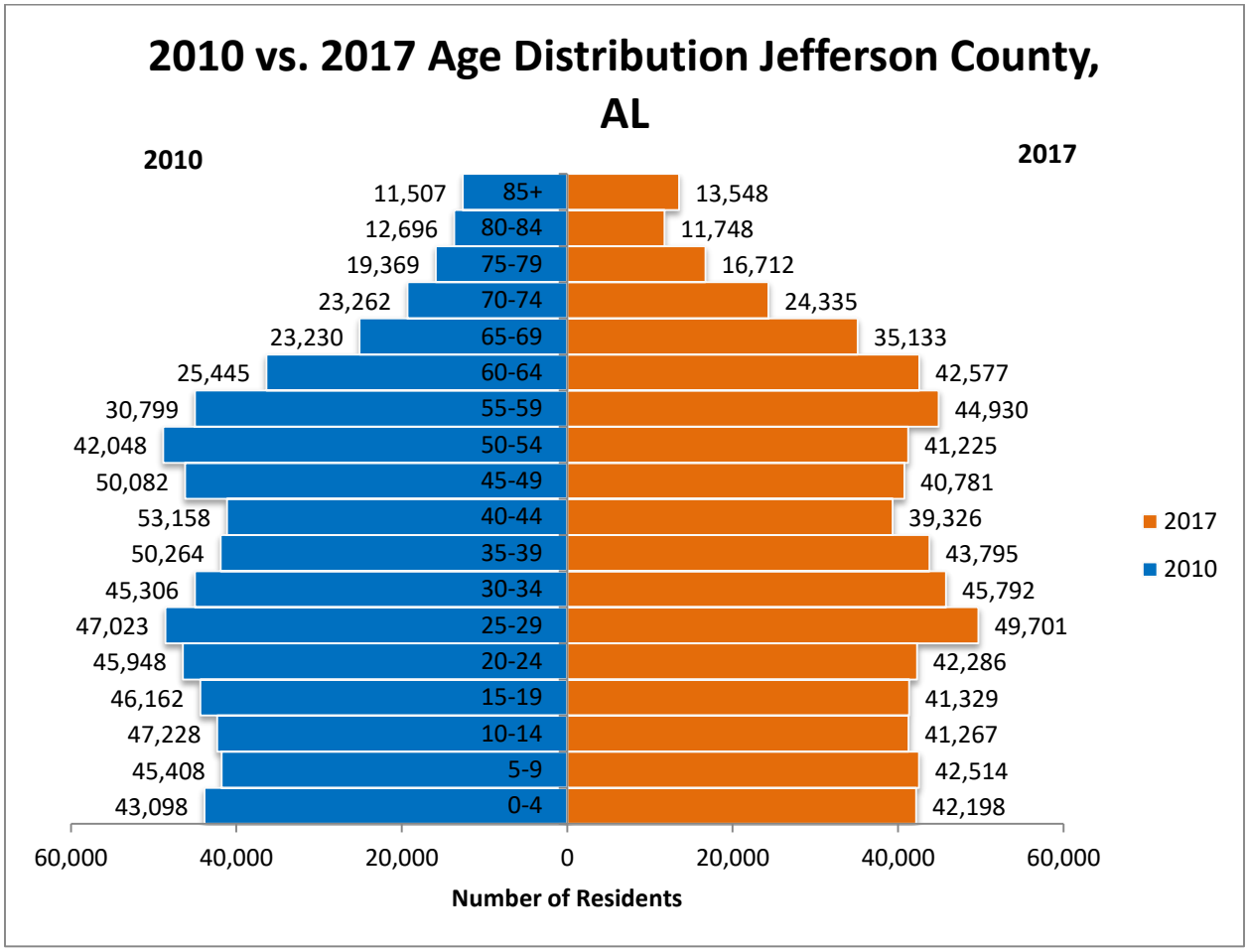
The Hispanic population of Jefferson County increased by 2.6% between 2012 and 2017. In 2012, the Jefferson County Hispanic population was 3.8% of the total population and in 2017 it was 3.9% of the total population.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Hispanic	10,708	11,718	13,178	14,618	16,048	17,604	19,344	20,854	22,401	23,962	25,406	25,205	25,194	24,086	24,025	24,263	24,561	25,590
Non-Hispanic	651,325	648,479	644,340	642,895	639,975	637,315	636,549	634,309	634,109	634,479	632,744	632,464	632,445	634,492	635,708	635,742	634,967	633,607

Jefferson County Population by Age

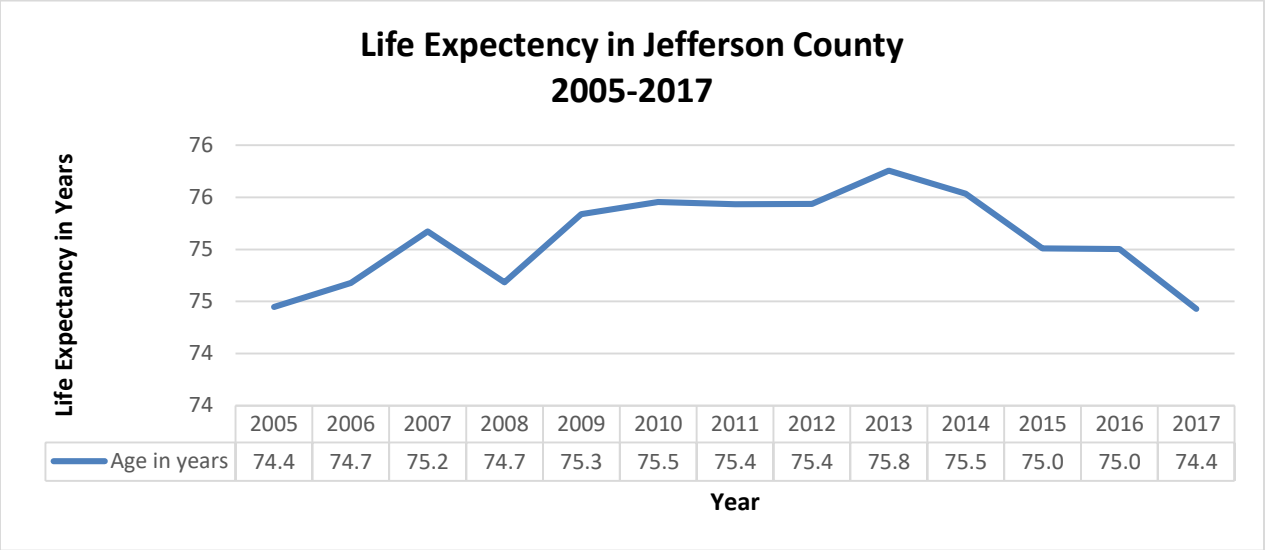
The 2017 age structure of the Jefferson County population compared to the 2010 age structure indicates an aging population.



Life Expectancy

Overall, life expectancy in Jefferson County at birth decreased statistically significantly from 75.4 years in 2012 to 74.4 years in 2017. Decreases in life expectancy were observed in the black and white sub-populations, as well as in the life expectancy of the male and female sub-populations. Statistically significant reductions in life expectancy were noted between 2012 and 2017 for the male, white, and white male subpopulations. Contributing factors to these changes are presented within this document.

According to the National Center for Health Statistics, the national life expectancy at birth in 2017 was 78.6 years; therefore, Jefferson County's life expectancy is lower than the national average.

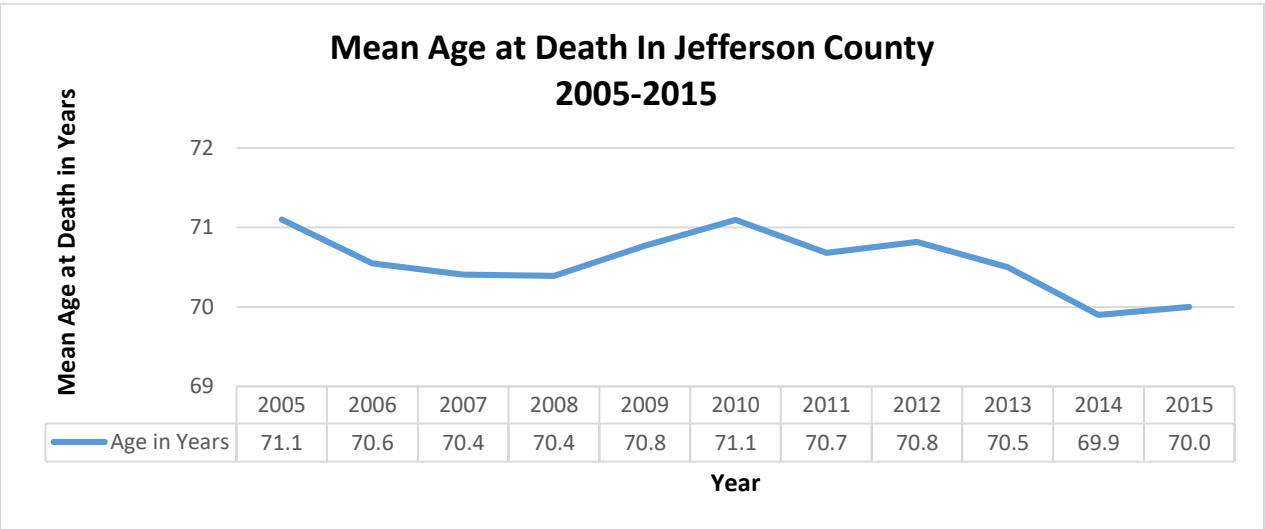


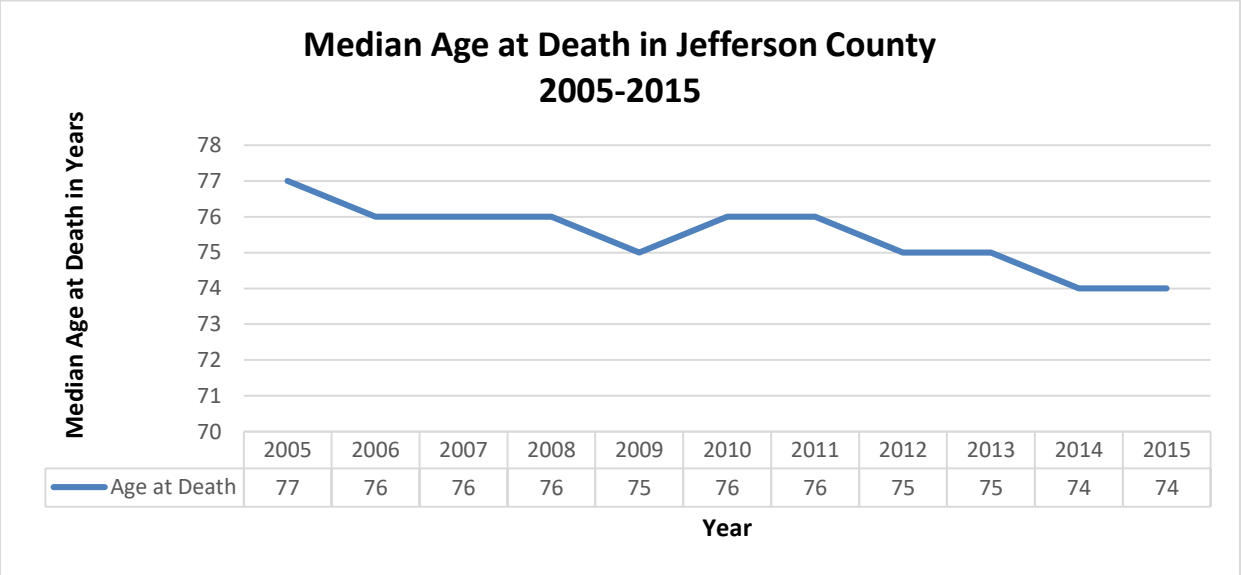
Years of Potential Life Lost

The total years of potential life lost prior to age 75 increased 17.6% from 65,367 in 2012 to 76,882 in 2017 for Jefferson County.

Age at Death

Both the mean and the median age at death decreased between 2012 and 2015 for the total population in Jefferson County.



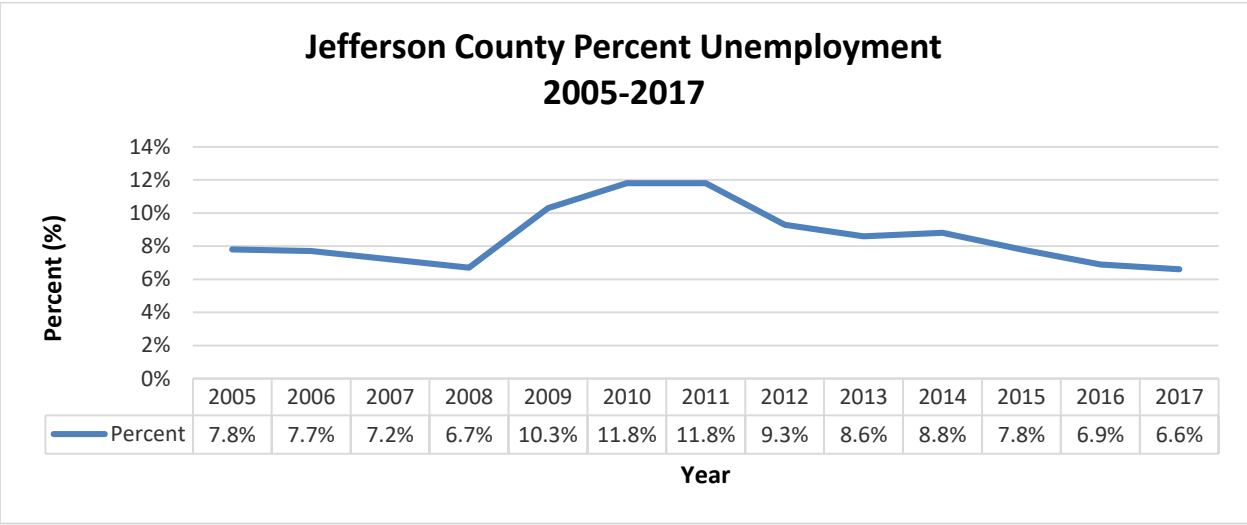


Socioeconomic Characteristics [11-19]

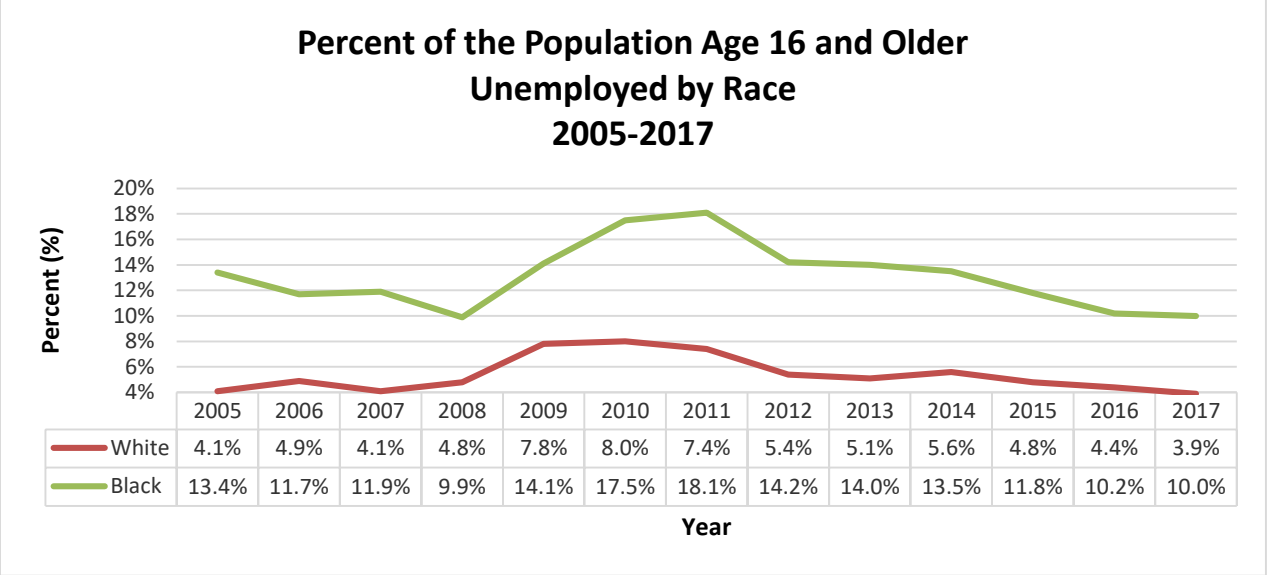
Indicators in this category provide a picture of the economic and social structures of Jefferson County. This category includes indicators related to poverty and income, employment, education, disabilities and family structures.

Employment

The unemployed Jefferson County sub-population decreased from 9.3% in 2012 to 6.6% in 2017 (29% decrease). The decline in the unemployment rate between 2012 and 2017 reached statistical significance. Unemployment was highest in 2010 and 2011 at 11.8%, with a decrease observed in 2012. The black sub-population experienced higher rates of unemployment than the white population. The change in unemployment rates for the black sub-population between 2012 and 2017 reached statistical significance.



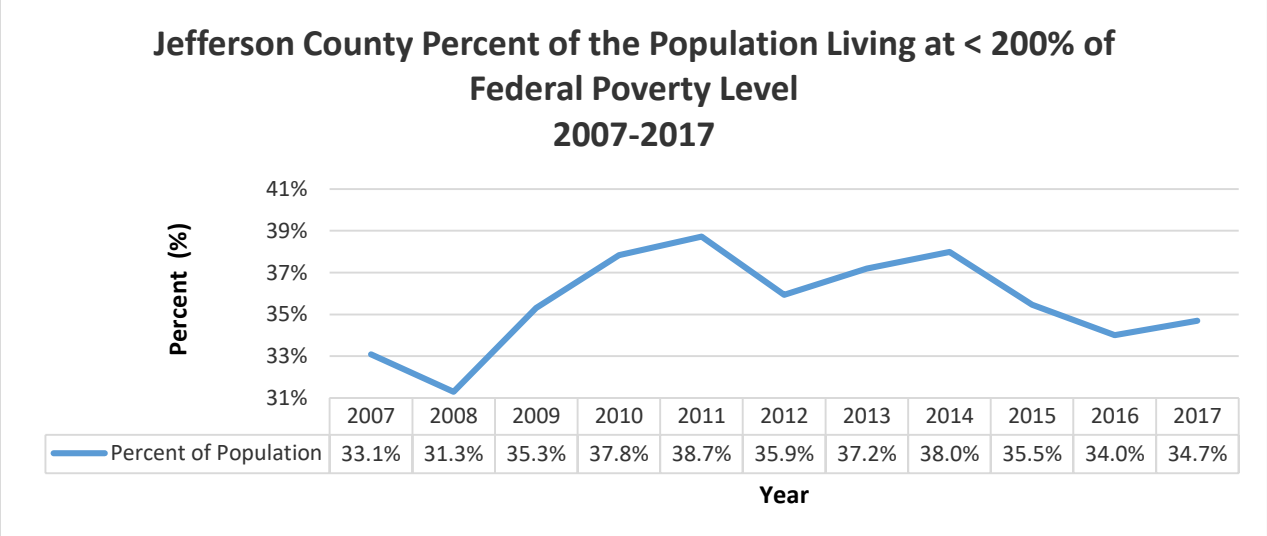
While unemployment rates have remained higher for the black sub-population, the relative disparity between whites and blacks declined between 2012 and 2017.



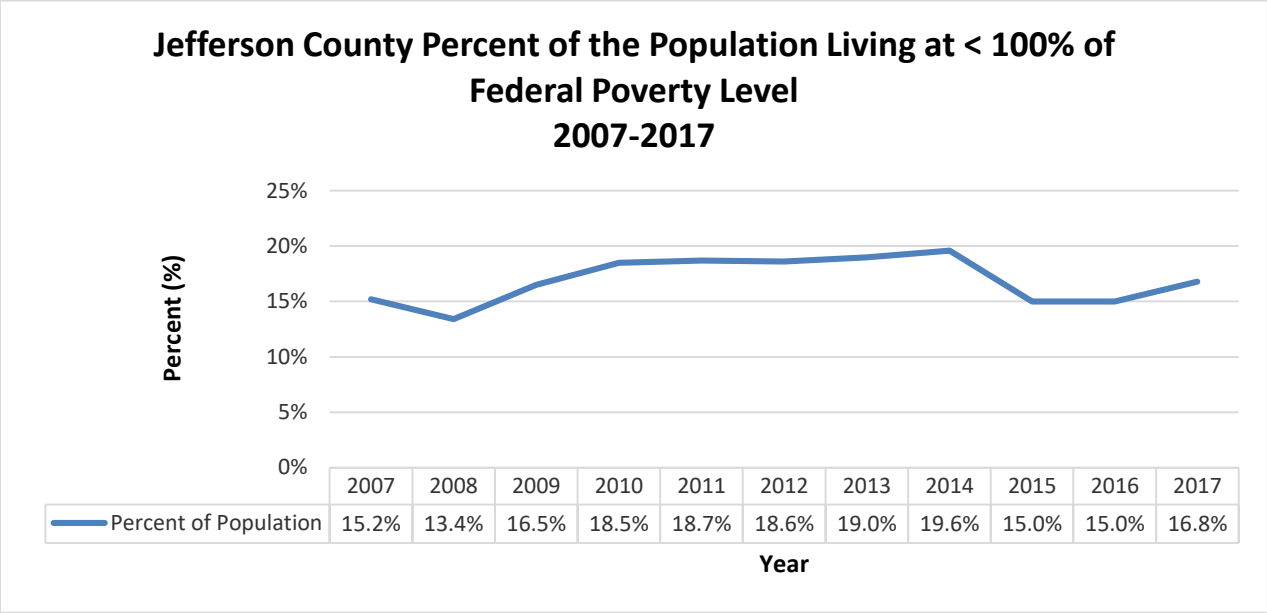
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
White	4.1%	4.9%	4.1%	4.8%	7.8%	8.0%	7.4%	5.4%	5.1%	5.6%	4.8%	4.4%	3.9%
Black	13.4%	11.7%	11.9%	9.9%	14.1%	17.5%	18.1%	14.2%	14.0%	13.5%	11.8%	10.2%	10.0%

Poverty

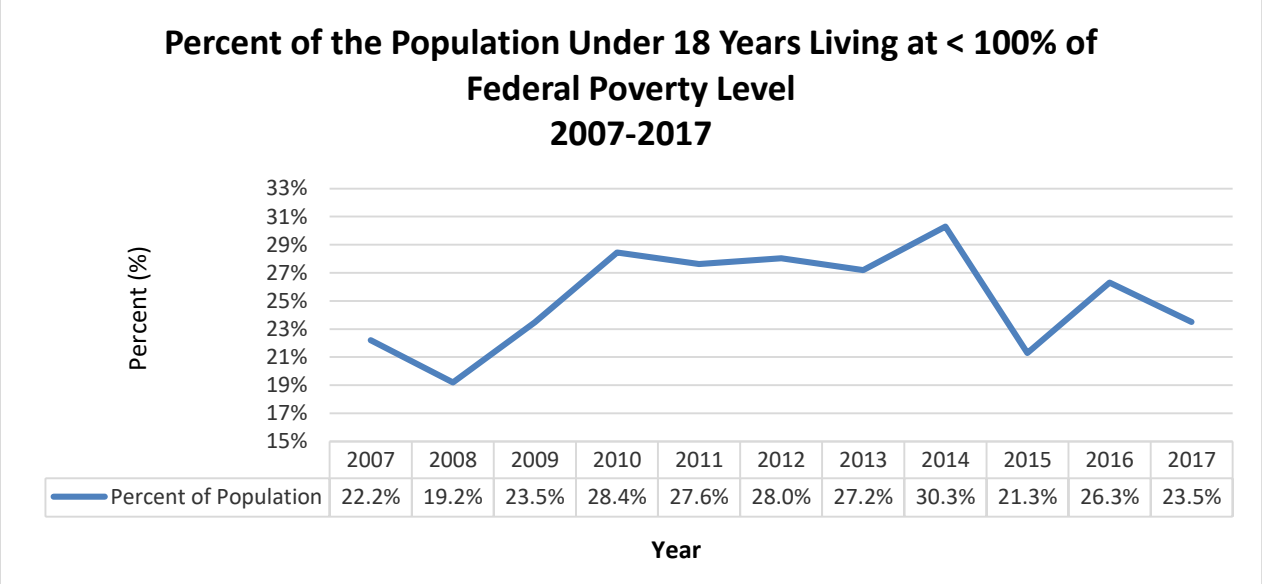
The percent of the population living in poverty decreased across all poverty sub-categories and age groups. The percent of the population living at less than 200% of the Federal Poverty Level in Jefferson County decreased from 35.9% in 2012 to 34.7% in 2017. The percent of the population living below the 100% Federal Poverty Level as defined by the Department of Health and Human Services decreased in Jefferson County from 18.6% in 2012 to 16.8% in 2017. In 2017, the nation-wide percentage of people living with an income less than the 100% Federal Poverty Level was 13.4%, indicating Jefferson County's poverty rate is higher than the national average.



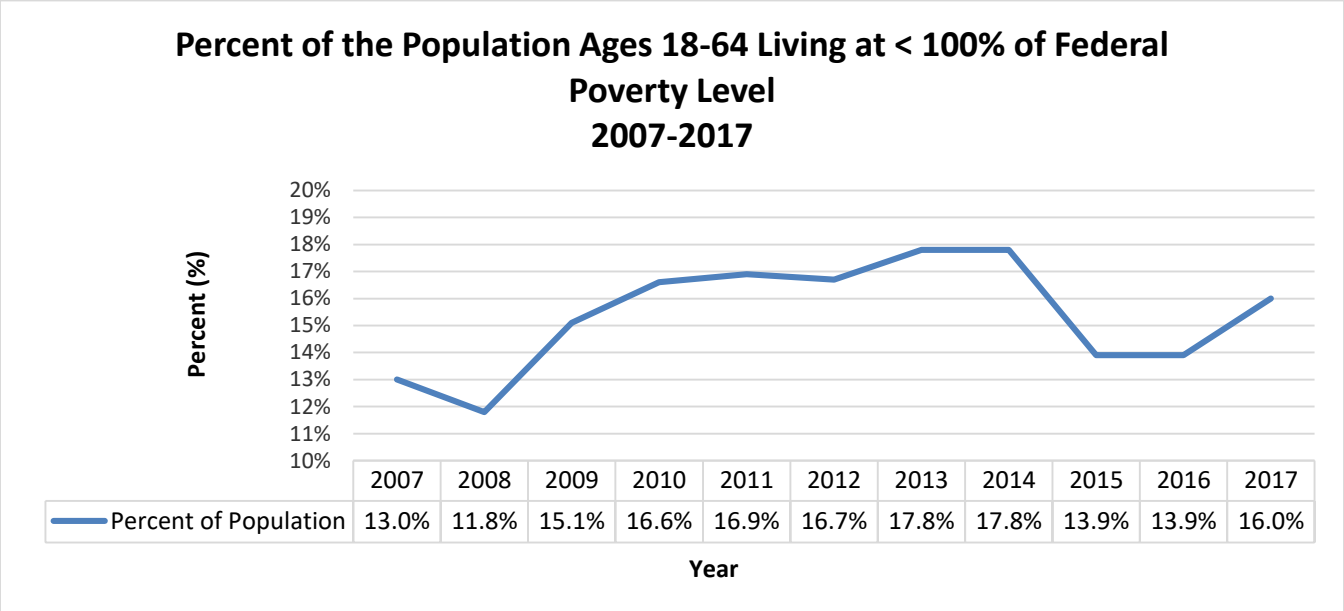
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Percent of Population	33.1%	31.3%	35.3%	37.8%	38.7%	35.9%	37.2%	38.0%	35.5%	34.0%	34.7%



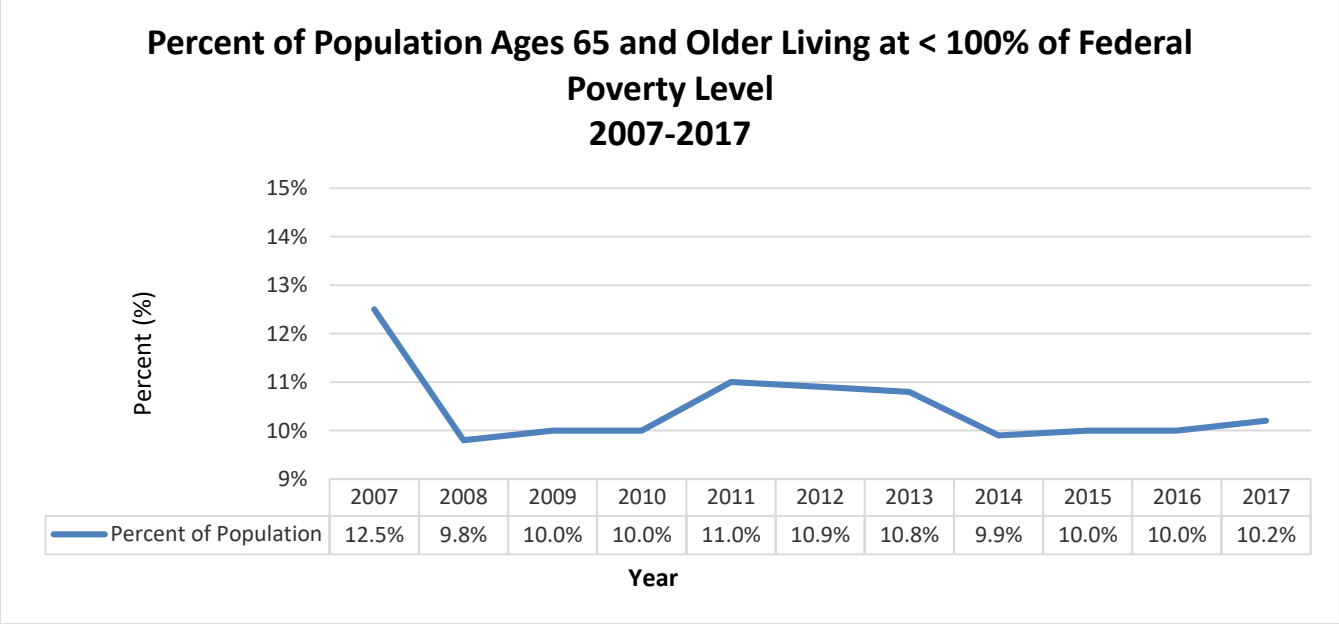
The percent of children living at 100% Federal Poverty Level decreased from 28.0% of the population in 2012 to 23.5% of the population in 2017.



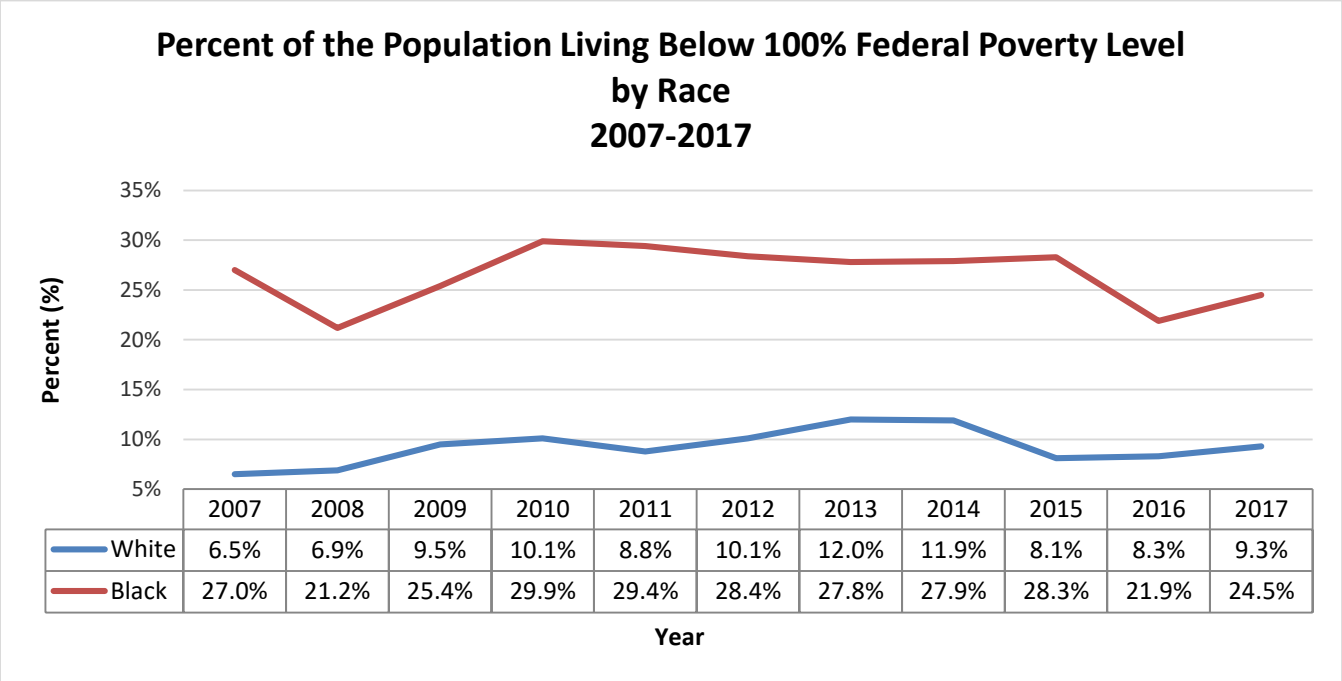
The percent of the adult sub-population, ages 18 to 64, living at 100% Federal Poverty Level decreased from 16.7% in 2012 to 16.0% in 2017.



The percent of adults age 65 years and older living in poverty decreased from 10.9% in 2012 to 10.2% in 2017.

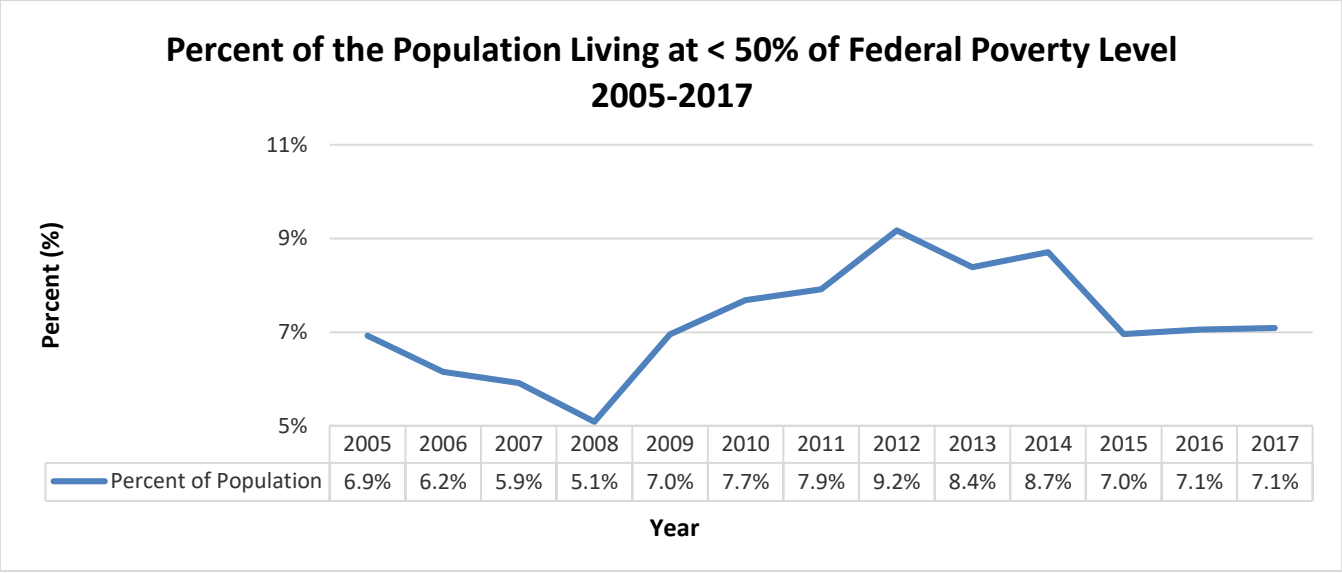


The percent of the black sub-population living at or below the 100% Federal Poverty Level is significantly higher than the percent of the white population living at 100% Federal Poverty Level.



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
White	6.5%	6.9%	9.5%	10.1%	8.8%	10.1%	12.0%	11.9%	8.1%	8.3%	9.3%
Black	27.0%	21.2%	25.4%	29.9%	29.4%	28.4%	27.8%	27.9%	28.3%	21.9%	24.5%

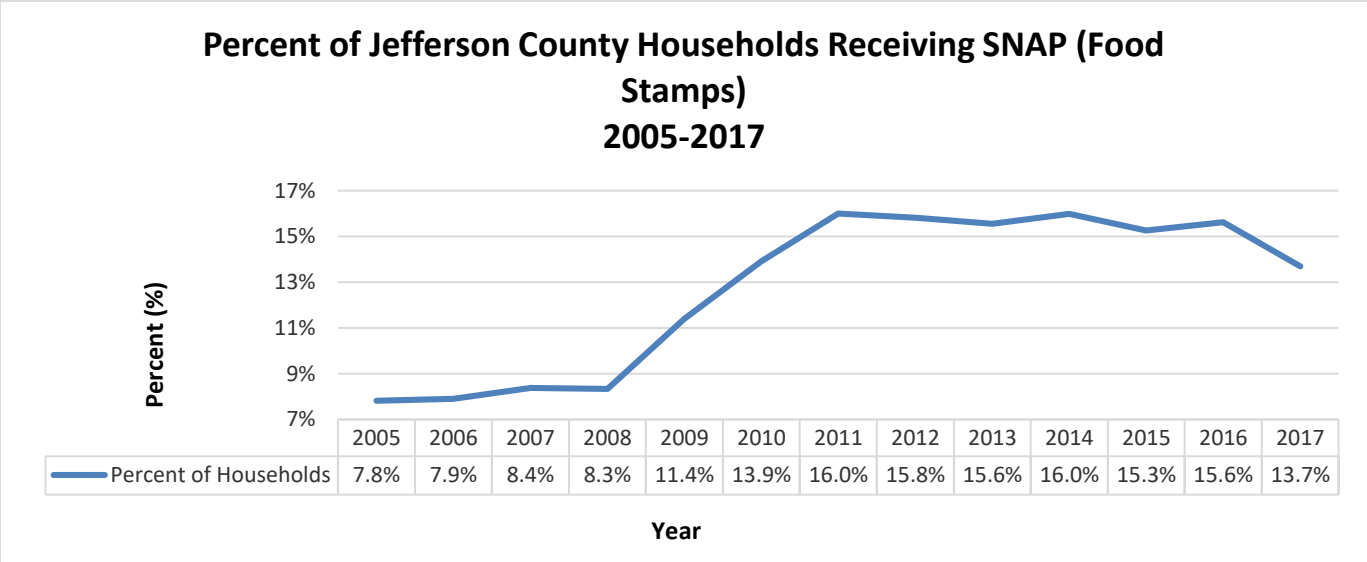
The percent of Jefferson County population living below 50% of the Federal Poverty Level decreased from 9.2% in 2012 to 7.1% in 2017.



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Percent of Population	6.9%	6.2%	5.9%	5.1%	7.0%	7.7%	7.9%	9.2%	8.4%	8.7%	7.0%	7.1%	7.1%

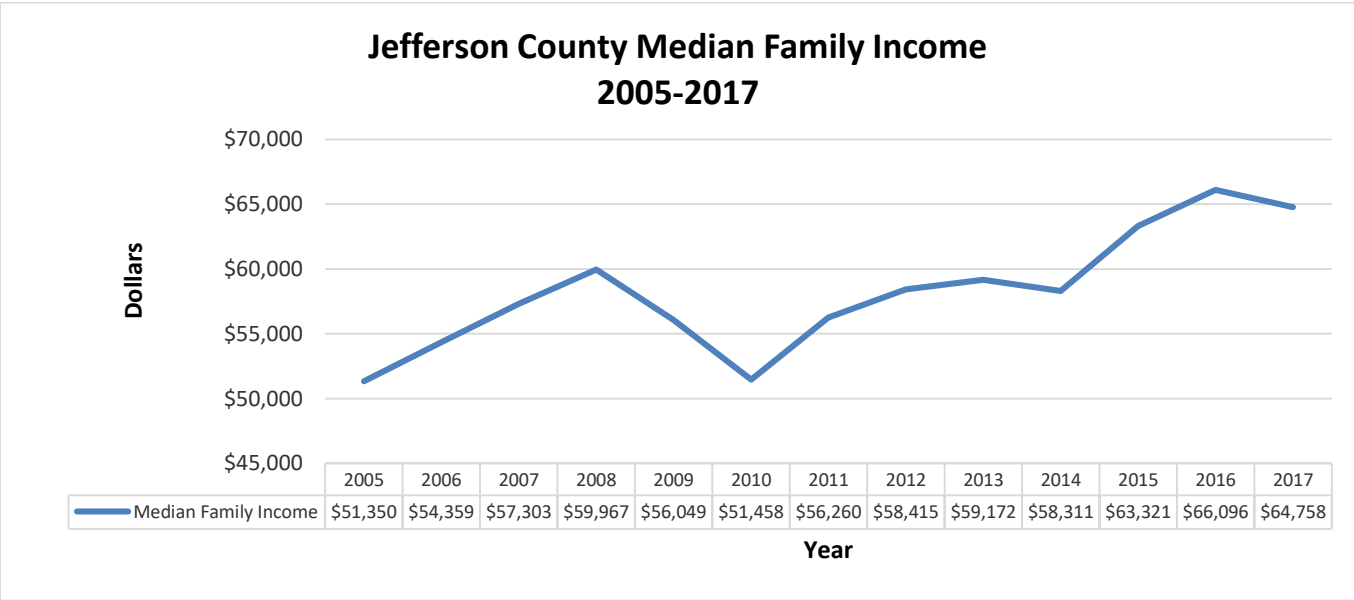
Supplemental Nutritional Assistance Program (Food Stamp) Participation

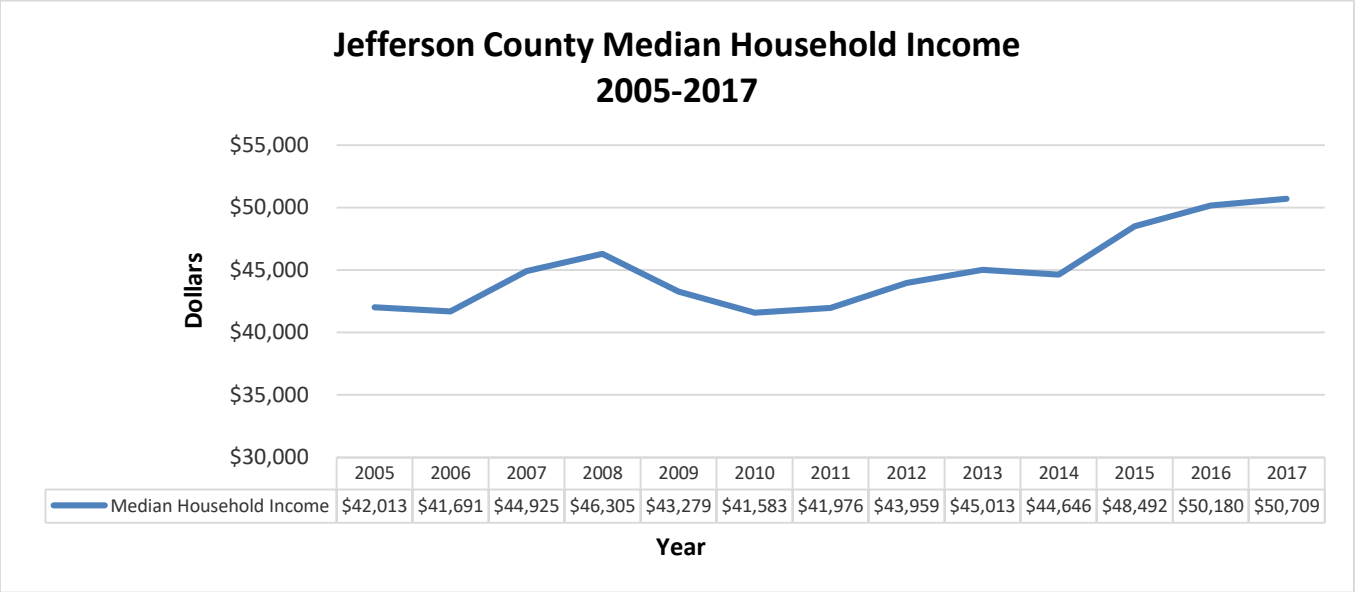
The Supplemental Nutrition Assistance Program (SNAP) provides nutritional assistance to low-income individuals. The percent of the Jefferson County population receiving SNAP or food stamps decreased from 15.8% in 2012 to 13.7% in 2017 (13.3% relative change).

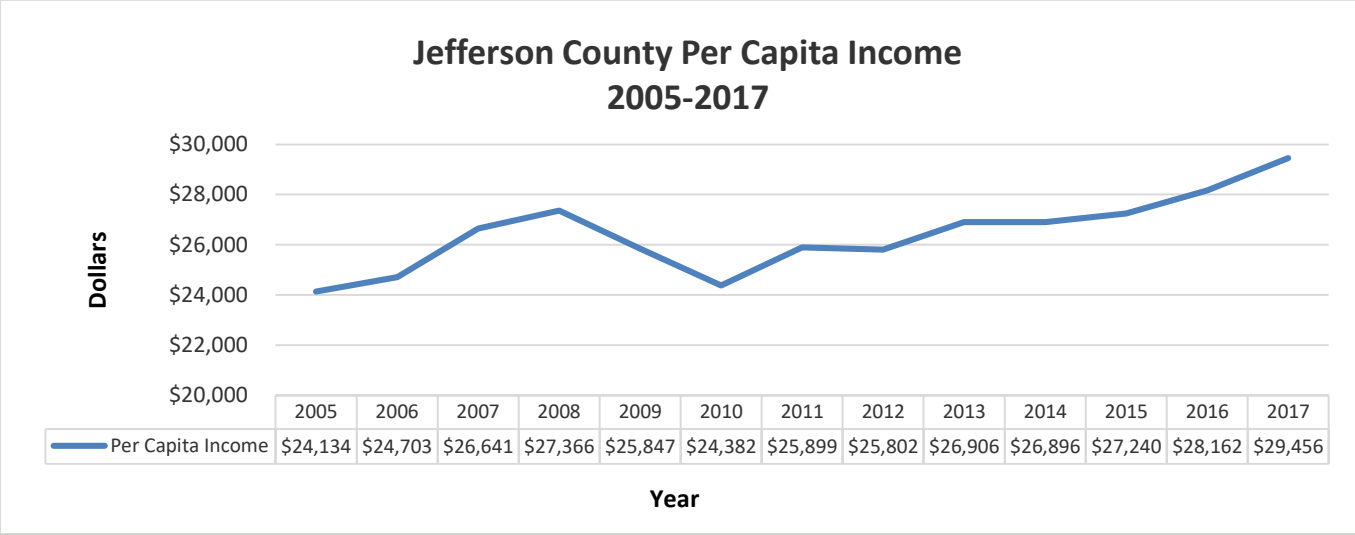


Income

Jefferson County's median family income increased from $58,415 in 2012 to $64,758 in 2017. The county's Median household income increased from $43,959 in 2012 to $50,709 in 2017, achieving statistical significance. The county's per capita income increased by from $25,802 in 2012 to $29,456 in 2017.

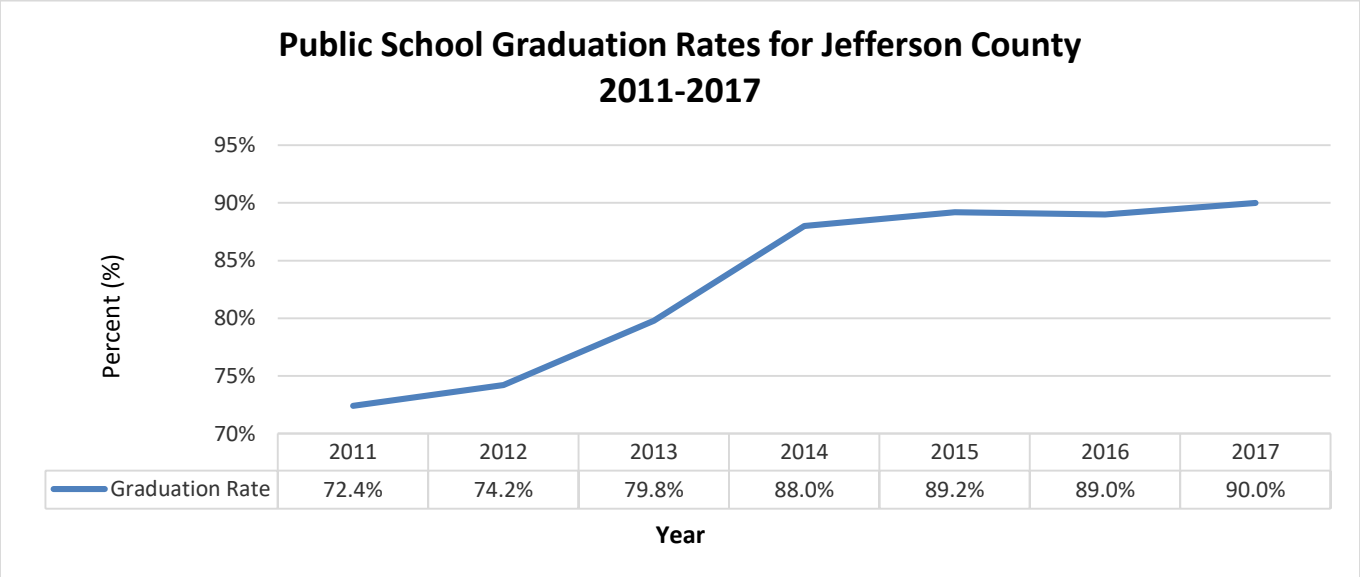




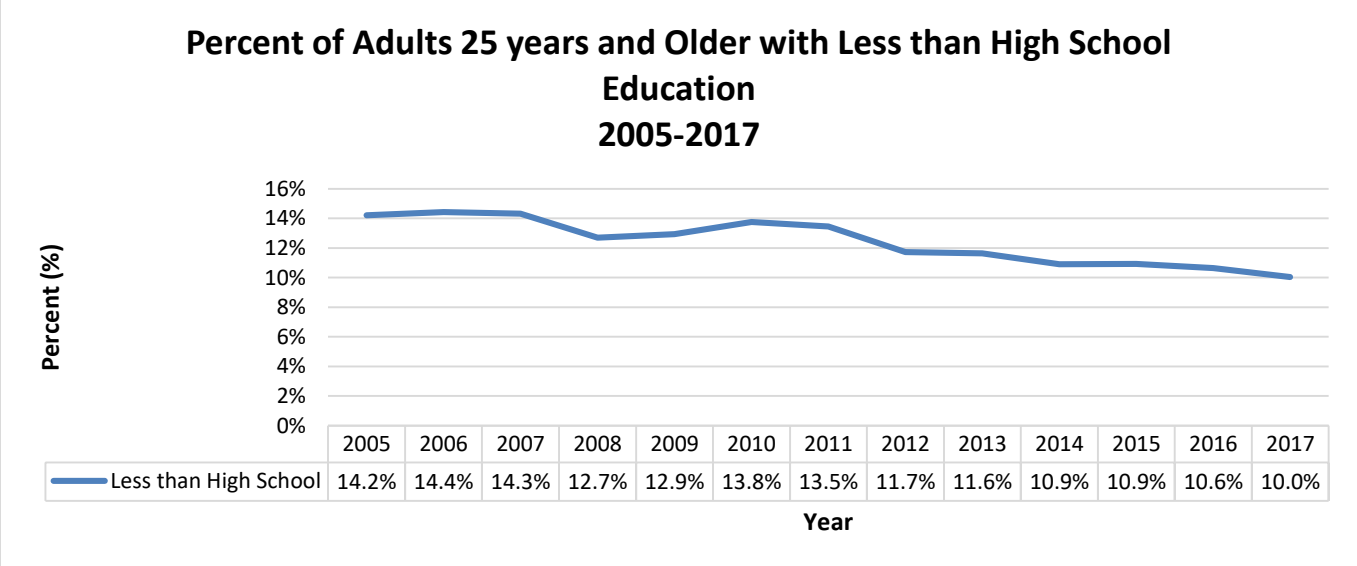


Educational Attainment

The overall rate of on-time high school graduation for public school students in Jefferson County increased 17.6% between 2012 (74.2%) and 2017 (90.0%). Graduation rates, however, vary widely between school systems. The on-time high school graduation rate for all Alabama public schools for the 2016-2017 school year was 90.4%.

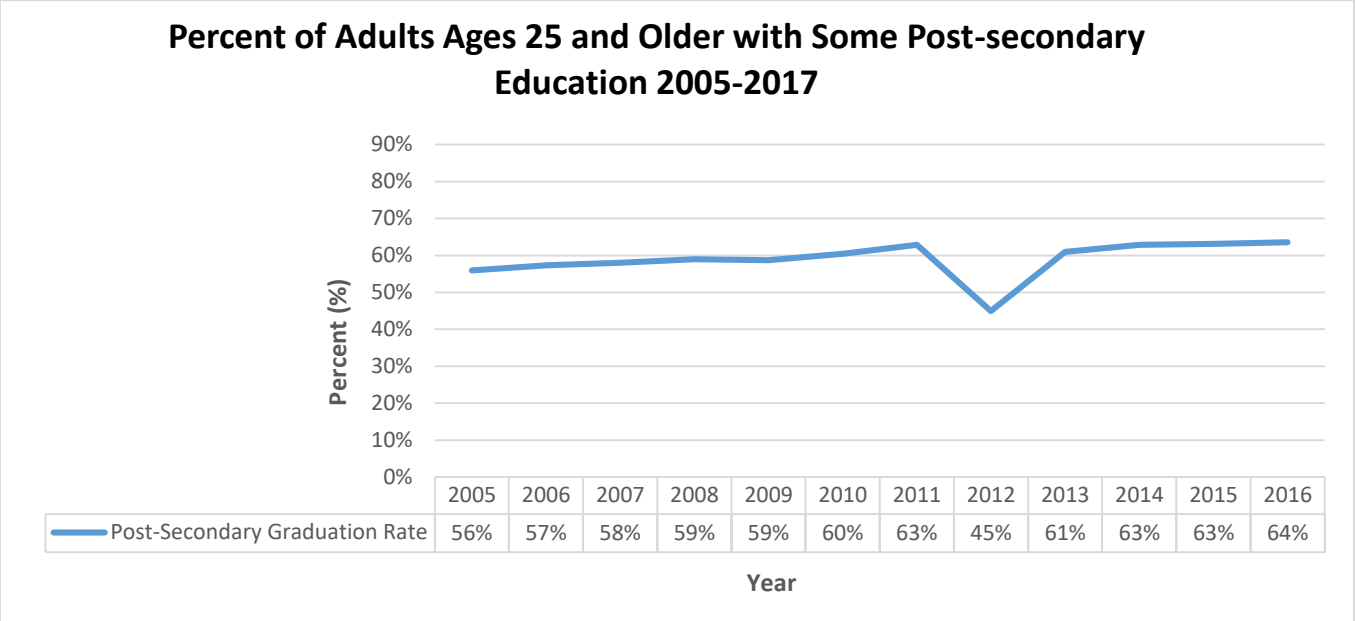


Percent of Adults with Less Than a High School Education



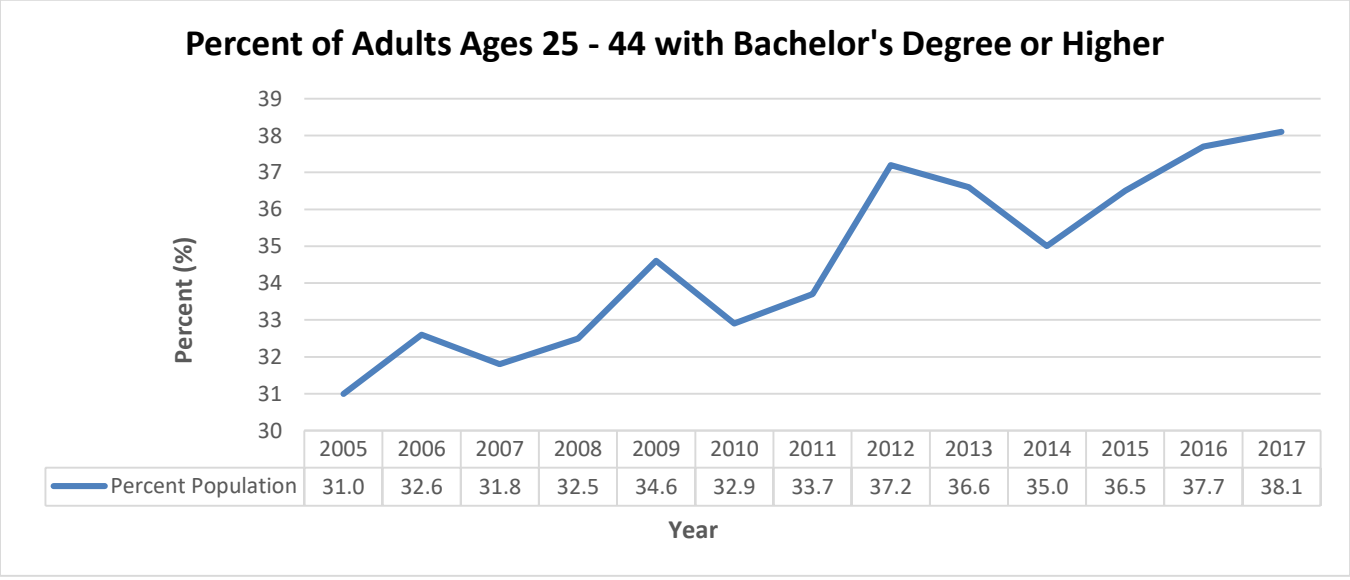
Percent of Adults over the Age of 25 with Some Post-secondary Education

The percent of Jefferson County adults completing some post-secondary education increased from 62.9% in 2012 to 63.9% in 2017.



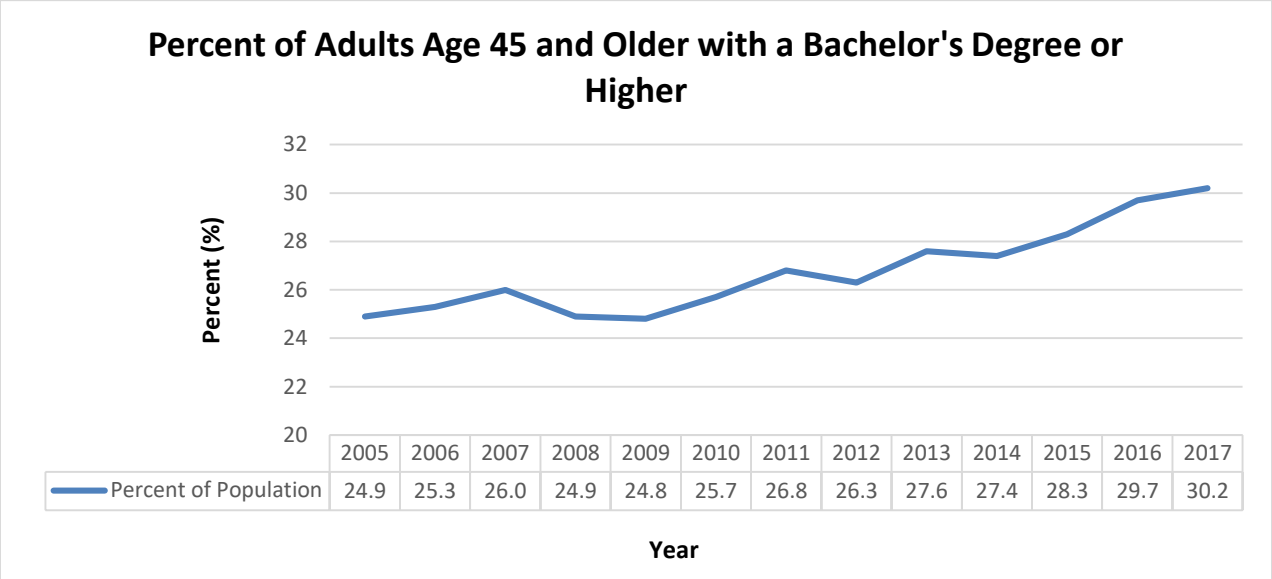
Percent of Adults Ages 25 to 44 with Bachelor's Degree or Higher Education

The percent of Jefferson County adults ages 25 to 44 with a bachelor's degree or higher level education increased from 37.2% in 2012 to 38.1% in 2017.



Percent of Adults over Age 45 with a Bachelor's Degree or Higher

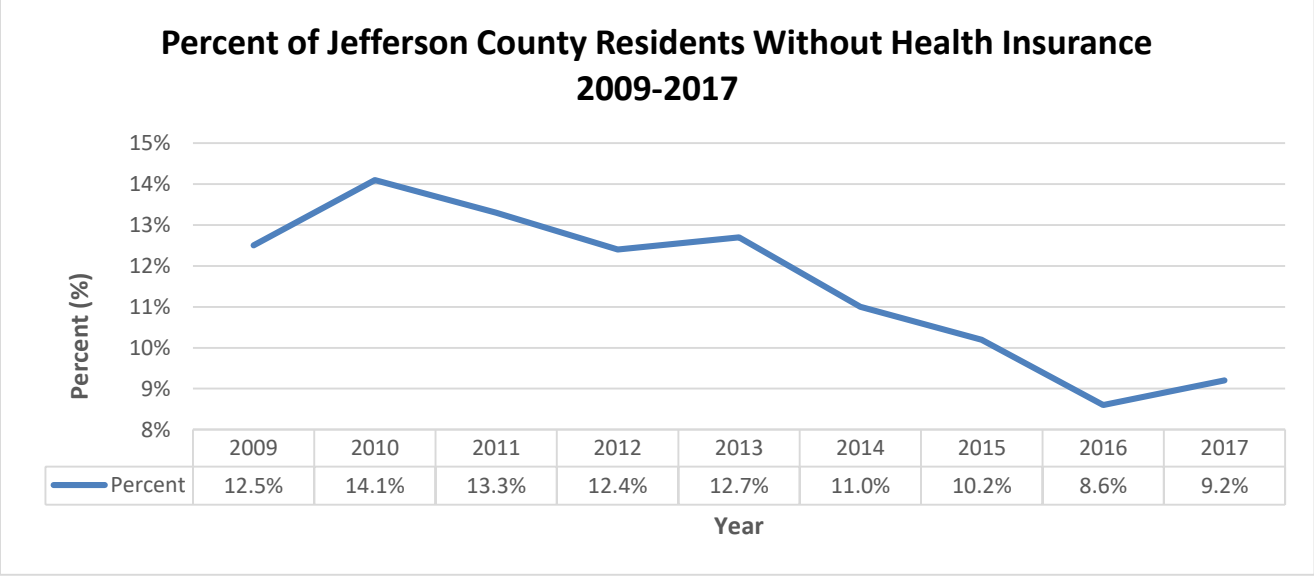
The percent of Jefferson County adults over age 45 with a bachelor's degree or higher increased from 26.3% in 2012 to 30.2% in 2017.



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Percent of Population	24.9	25.3	26.0	24.9	24.8	25.7	26.8	26.3	27.6	27.4	28.3	29.7	30.2

Persons without Health Insurance

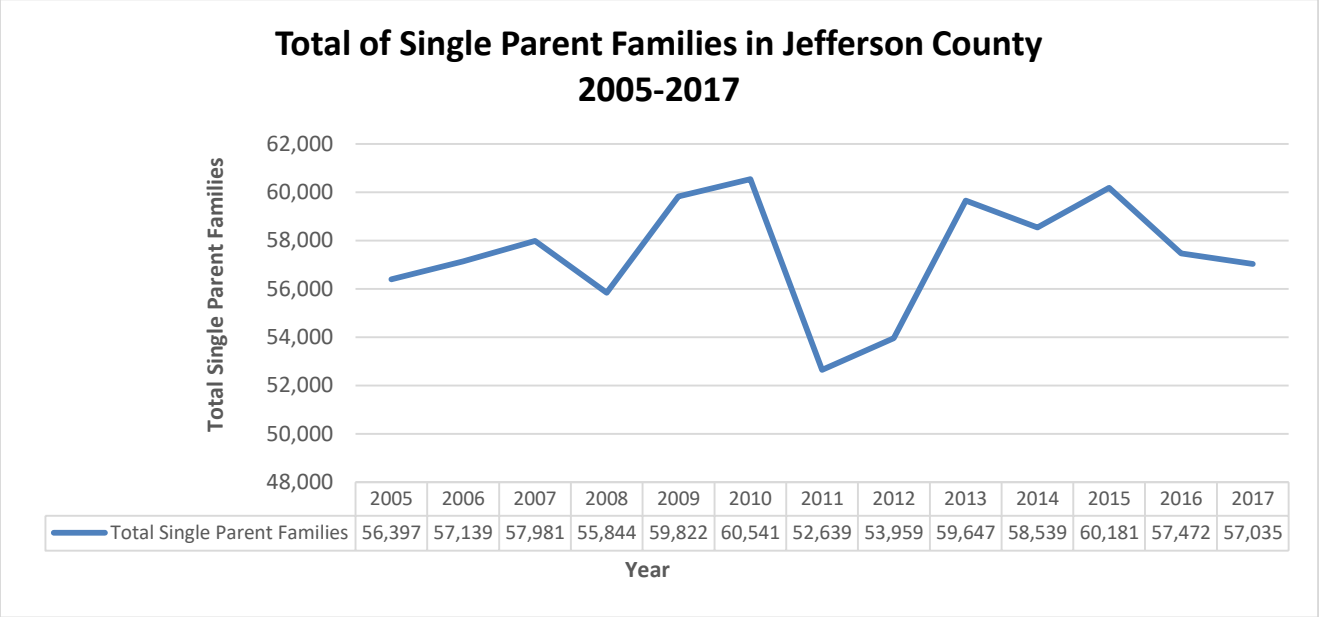
The percent of Jefferson County's population without health insurance decreased in 2012 to 9.2% in 2017.



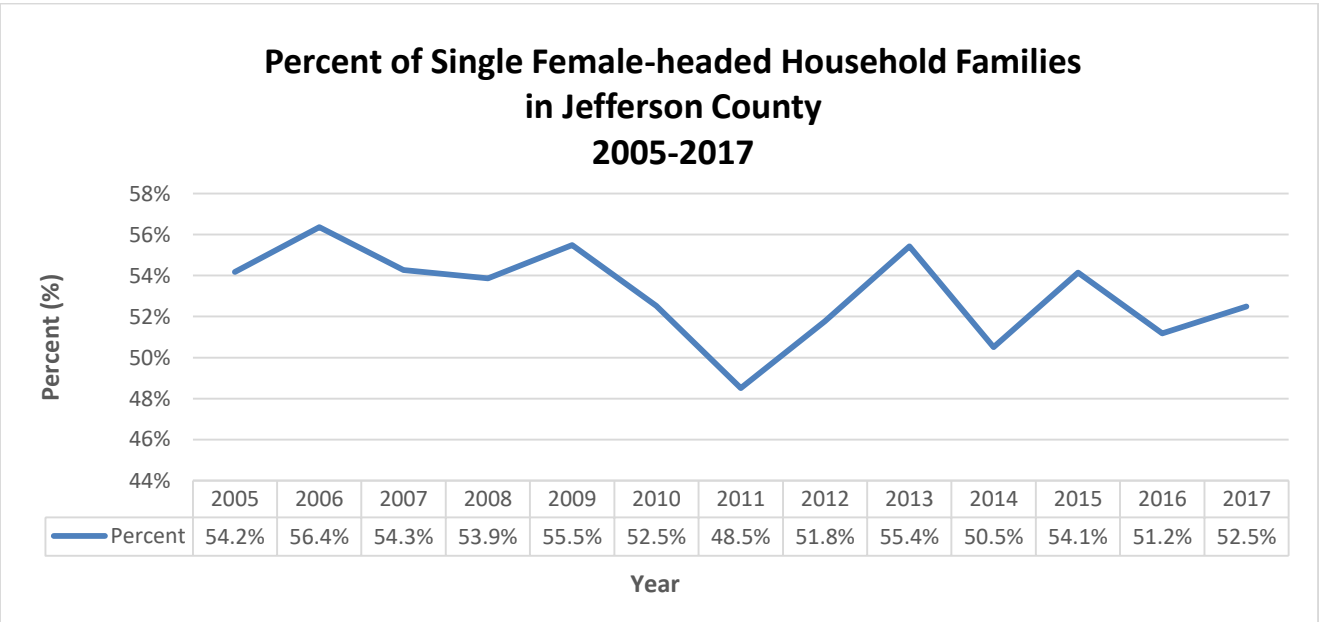
	2009	2010	2011	2012	2013	2014	2015	2016	2017
Percent	12.5%	14.1%	13.3%	12.4%	12.7%	11.0%	10.2%	8.6%	9.2%

Single Parent Families

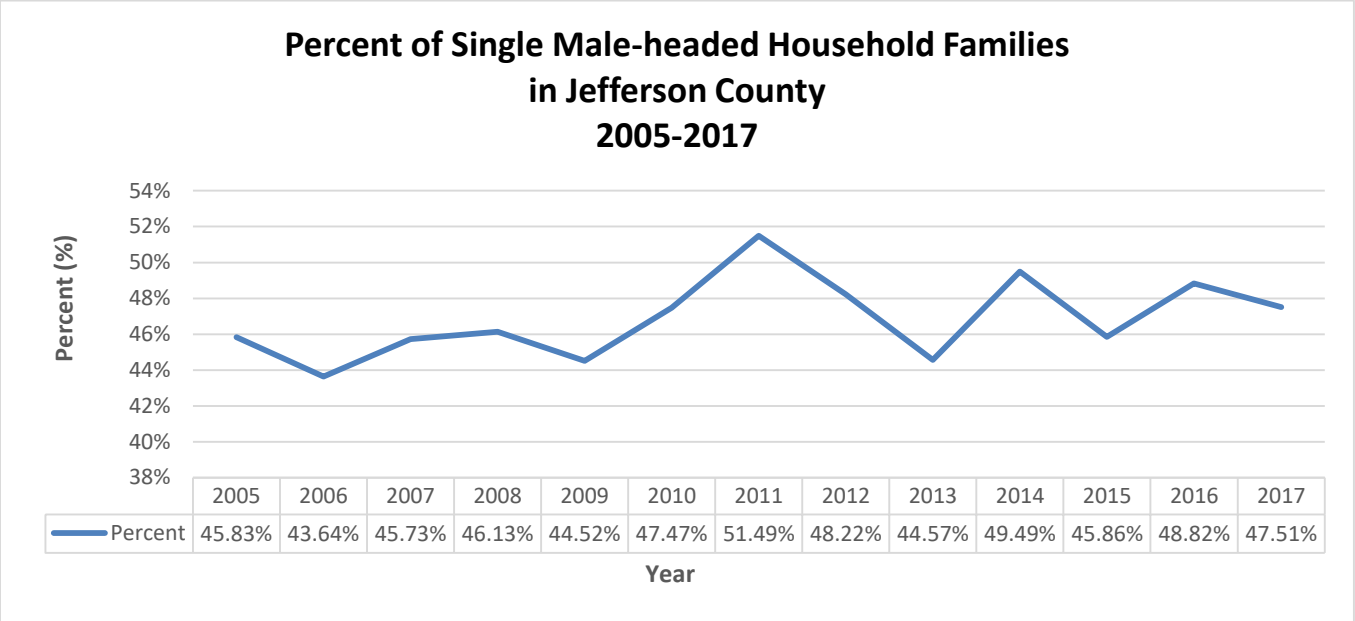
The overall number of single parent family households increased from 53,959 in 2012 to 57,035 in 2017. The number of single female family households demonstrated a slight increase during the same time period. The number of male single parent family households demonstrated a decline when comparing 2012 to 2017 data.



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Single Parent Families	56,397	57,139	57,981	55,844	59,822	60,541	52,639	53,959	59,647	58,539	60,181	57,472	57,035

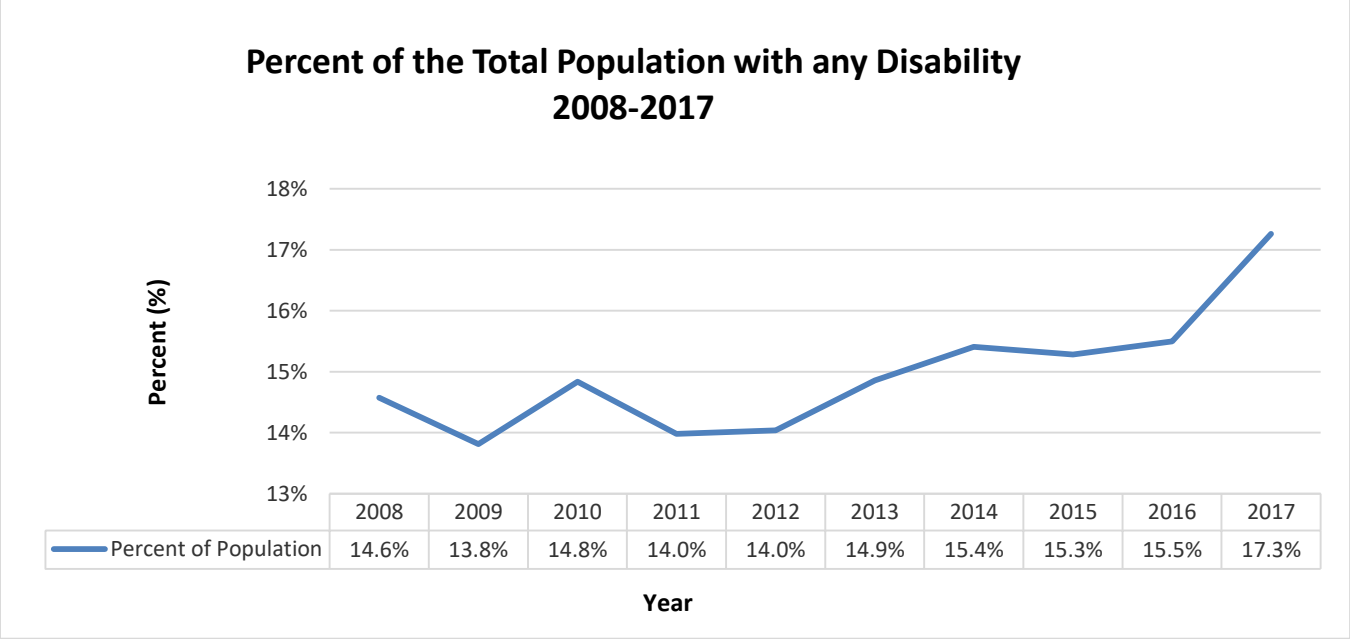


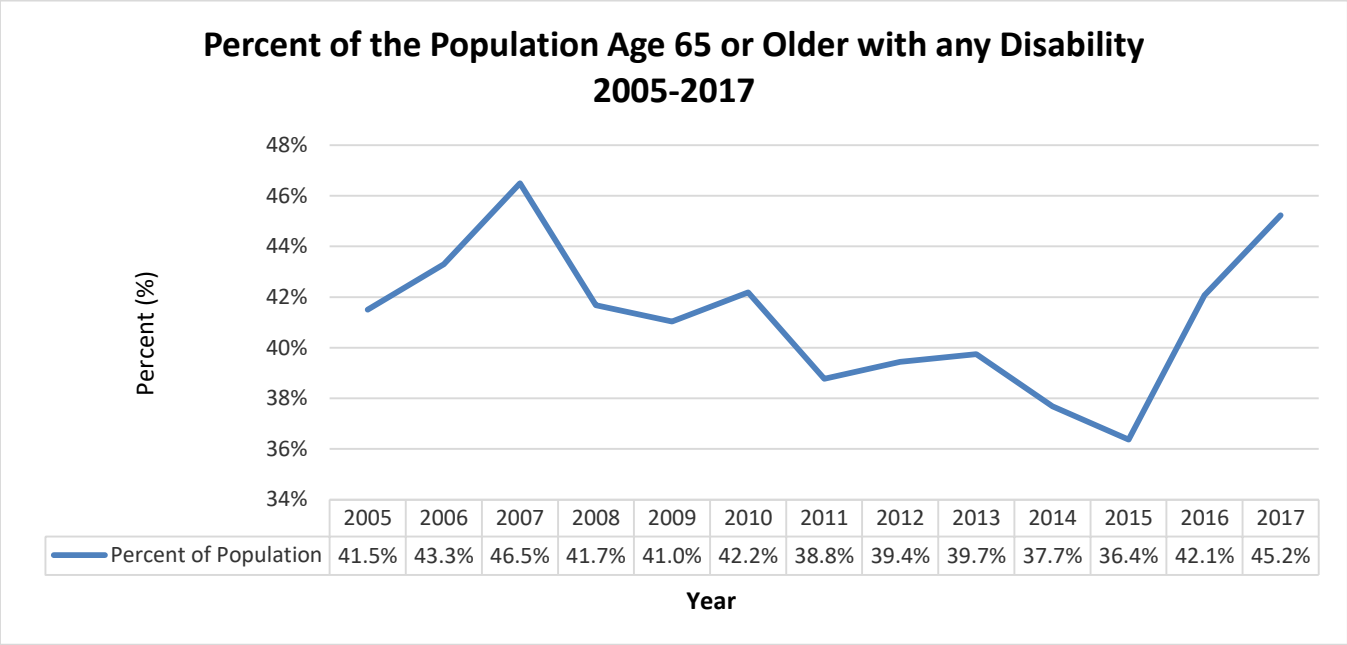
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Percent	54.2%	56.4%	54.3%	53.9%	55.5%	52.5%	48.5%	51.8%	55.4%	50.5%	54.1%	51.2%	52.5%



Persons with Disabilities

The percentage of the population in Jefferson County with disabilities increased between 2012 and 2017, and the increase was statistically significant. The percent of the population over 65 years of age with disabilities increased from 2014 to 2017.





Socioeconomic Findings

Jefferson County's socioeconomic findings indicate family and per capita incomes increased between 2012 and 2017 while the rates of poverty and unemployment decreased during this timeframe. Poverty rates decreased between 2012 and 2017 among all age groups. Following the trend of decreasing poverty, the percent of households receiving SNAP (food stamps) also decreased. The percentage of adults ages 25 to 44 years with a bachelor's degree or higher increased from 2012 to 2017, yet the percentage of persons who are 25 years of age or older with less than a high school diploma increased between 2012 and 2017, a statistically significant change.

Household and family structure data indicate that the number of single parent family households remained relatively stable for both male and female single parent families.

The number of individuals living in Jefferson County without health insurance declined each year from 2012 to 2017.

Health Resource Availability [20-26]

Indicators in this category demonstrate the opportunities available for residents of Jefferson County to access needed health care resources. Data are expressed as the proportion of providers to population, the number of hospital beds, the number of Federally Qualified Health Centers (FQHCs) and the Jefferson County Department of Health's (JCDH) number of full-time equivalent employees and expenditure per county resident.

Providers

The table below shows the proportion of the Jefferson County population per provider by type.

Type of Provider	Proportion of Population Per Provider (2013)	Proportion of Population Per Provider (2018)
Licensed Dentists	1 dentist per 1,148 population	1 dentist per 1,588 population
Licensed Primary Care Physicians	1 primary care physician per 474 population	1 primary care physician per 163 population
Mental Health Providers	1 mental health provider per 1,024 population	1 mental health provider per 640 population

Hospital Beds

The table below shows the number of hospital beds per 100,000 Jefferson County residents and the percent bed occupancy during 2018.

Type of Hospital Bed	Number of Beds per 100,000 Population (% Occupancy) (2013)	Number of Beds per 100,000 Population (% Occupancy) (2018)
Total Beds	680.8 per 100,000 (61% occupancy)	658.7 per 100,000 (79% occupancy)
Acute Care Beds	590.7 per 100,000	354.2 per 100,000
Specialty Beds	90.1 per 100,000	144.0 per 100,000

Federally Qualified Health Centers

Federally Qualified Health Centers (FQHCs) are safety net providers that offer primary care services in underserved urban and rural communities. The table below shows the percentage of the eligible population, those with an income less than 200% of the Federal Poverty Level, receiving health care from an FQHC or the Jefferson County Department of Health (JCDH). The number of individuals living at less than 200% of the Federal Poverty Level receiving care from private providers or other public providers is unknown.

Health Safety Net Indicators	Index data (2012)	Endpoint data (2017)	Relative Percent Change	Movement
Total Population < 200% Federal Poverty Level	**236,374**	**228,693**	-3.20%	**Desirable**
Percent of Eligible Population Served by FQHC[15]	**7.20%**	**11.00%**	52.80%	**Desirable**
Percent of Eligible Population Served by JCDH[16]	**19.20%**	**23.20%**	20.80%	**Desirable**

Jefferson County Department of Health (JCDH)

The Jefferson County Department of Health (JCDH) is a county health department serving Jefferson County, Alabama. The following table provides data regarding the number of JCDH employees, JCDH's expenditures per Jefferson County resident and its expenditures related to its primary care it provides.

		Reference Data (2013)	Endpoint Data (2018)	Relative Percent Change since 2013	Movement
JCDH Full Time Equivalent Employees	(number)	**357**	**440**	23.00%	**Desirable**
JCDH Operating Budget per Jefferson County Resident	(dollars per resident)	**$91**	**$80**	-12.09%	**Undesirable**
Total Cost of JCDH Primary Care Services	(dollars)	**$12,503,922**	**$14,066,817**	12.50%	**Not Applicable**
Cost of Clinical Services as % of JCDH's Total Budget	(%)	**20.80%**	**26.70%**	28.36%	**Not Applicable**
JCDH Expenditure per Patient	(dollars)	**$280.79**	**$261.01**	-7.04%	**Not Applicable**

Health Resource Availability Findings

The ratio of mental health providers and primary care physicians per population in Jefferson County declined statistically significantly between 2013 and 2017 indicating improved access to care, between 2013 and 2018 the ratio of dentists per population increased. This data indicates the continued need for access to dentists within the county. During this time period, the number of acute care hospital beds per population decreased while the number of specialty care hospital beds per population increased,

expanding healthcare access. The total bed occupancy rate for all hospital beds in Jefferson County increased to 79% in 2018 from the 2013 rate of 61%.

According to United States Department of Health and Human Services, Federally Qualified Health Centers (FQHCs) serve the sub-population with an income of less than 200% of the Federal Poverty Level. Although the overall number of Jefferson County residents living at less than 200% Federal Poverty Level decreased between 2012 and 2017, the percentage of residents served by Federally Qualified Health Centers or Jefferson County Department of Health (JCDH) clinics increased.

The number of full-time employees at the Jefferson County Department of Health (JCDH) increased from 357 employees in 2012 to 440 employees in 2017. The total cost of primary care services and the volume of patients served by JCDH increased between 2012 and 2017. The increased number of employees and patients are reflected in the growing cost of Clinical Services as a percentage of the Jefferson County Department of Health's total budget.

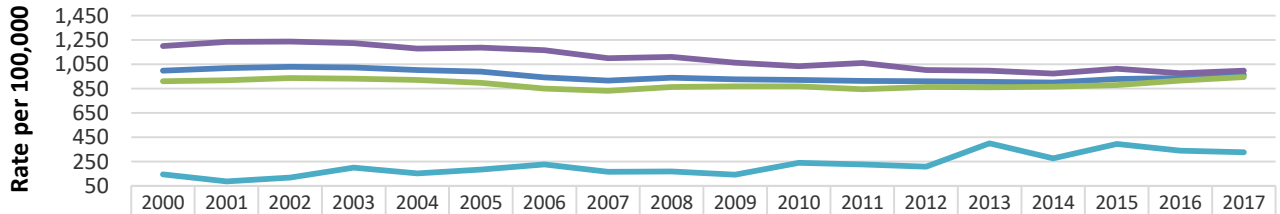
Death, Illness and Injury [27-53]

Indicators in this category demonstrate the morbidity (illness) and mortality (death) experience of Jefferson County residents over time. Data measures for this category include mortality rates for a variety of causes of death. All mortality rates reported in this section are age-adjusted. Age-adjusted mortality rates are adjusted to the 2000 population standard age distribution to provide an accurate comparison rate between communities of differing age structures.

All-Cause Mortality

The all-cause mortality rate is the total mortality rate for all causes of death per 100,000 population among Jefferson County residents. In 2012, the all-cause mortality rate was 911.7 deaths per 100,000 population. The all-cause mortality rate for 2017 increased to 964.7 deaths per 100,000 population, representing a 5.8% increase in the mortality rate since 2017. The 2017 all-cause mortality rate is statistically significantly higher than the 2012 rate. All-cause mortality rates in 2017 were statically significantly higher in 2017 compared to 2012 for males and the white sub-population.

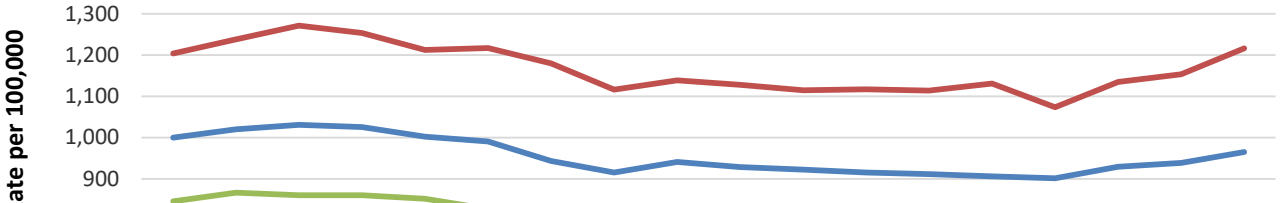
All-Cause Mortality Rate per 100,000 Jefferson County Residents by Race 2000-2017



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	999.5	1,020	1,030	1,025	1,002	990.3	943.0	915.6	940.9	928.6	922.0	915.4	911.7	905.9	901.4	929.1	938.7	964.7
White	912.1	920.4	938.5	933.7	923.2	898.1	852.1	832.7	865.0	870.1	868.8	846.2	865.4	861.8	866.9	880.6	918.1	946.2
Black	1,202	1,234	1,238	1,224	1,180	1,187	1,166	1,099	1,110	1,064	1,035	1,061	1,003	997.7	974.6	1,013	977.8	998.2
Other	144.8	89.1	118.9	201.2	153.6	186.6	228.6	166.5	168.9	143.8	241.4	228.1	208.4	402.1	276.7	396.3	340.0	326.5

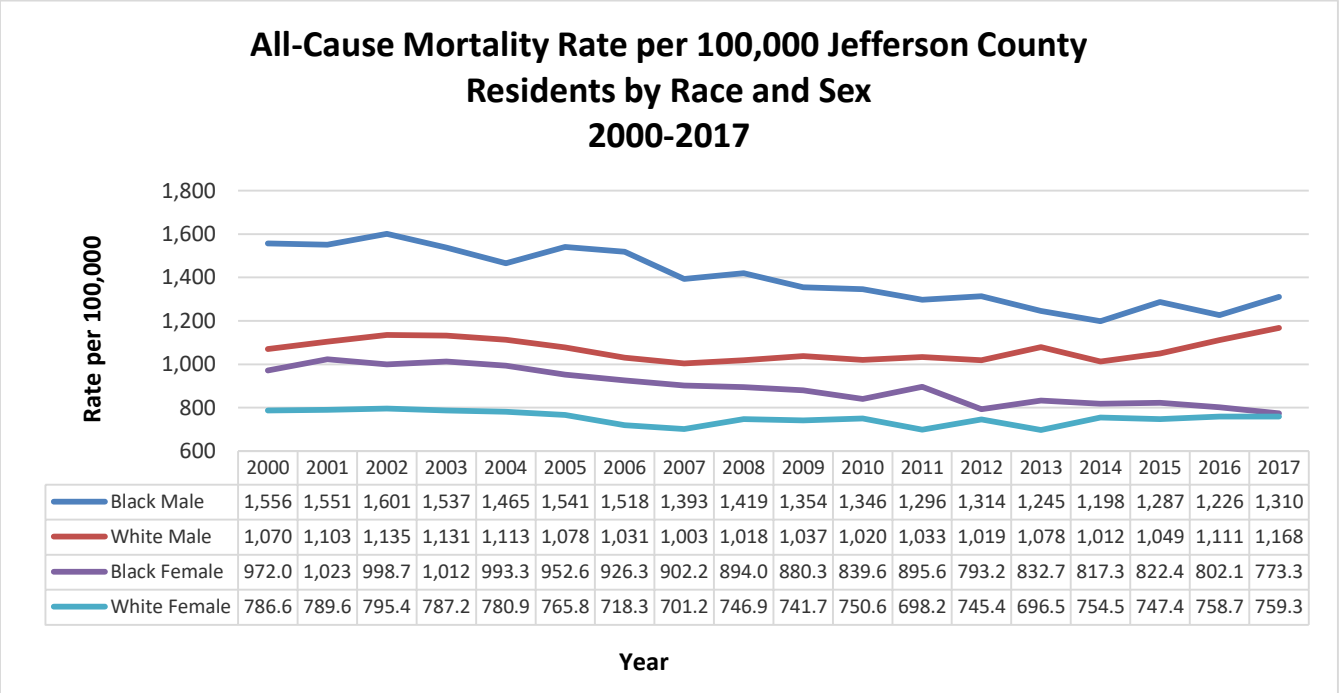
Year

All-Cause Mortality Rate per 100,000 Jefferson County Residents by Sex 2000-2017



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	999.5	1,020	1,030	1,025	1,002	990.3	943.0	915.6	940.9	928.6	922.0	915.4	911.7	905.9	901.4	929.1	938.7	964.7
Male	1,204	1,238	1,271	1,253	1,212	1,217	1,180	1,116	1,139	1,127	1,115	1,117	1,114	1,131	1,073	1,134	1,153	1,216
Female	845.3	866.2	859.9	860.1	851.4	826.9	787.6	766.3	790.5	783.4	781.6	762.7	759.6	744.7	771.6	774.3	773.1	766.9

Year



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Black Male	1,556	1,551	1,601	1,537	1,465	1,541	1,518	1,393	1,419	1,354	1,346	1,296	1,314	1,245	1,198	1,287	1,226	1,310
White Male	1,070	1,103	1,135	1,131	1,113	1,078	1,031	1,003	1,018	1,037	1,020	1,033	1,019	1,078	1,012	1,049	1,111	1,168
Black Female	972.0	1,023	998.7	1,012	993.3	952.6	926.3	902.2	894.0	880.3	839.6	895.6	793.2	832.7	817.3	822.4	802.1	773.3
White Female	786.6	789.6	795.4	787.2	780.9	765.8	718.3	701.2	746.9	741.7	750.6	698.2	745.4	696.5	754.5	747.4	758.7	759.3

Ten Leading Causes of Death

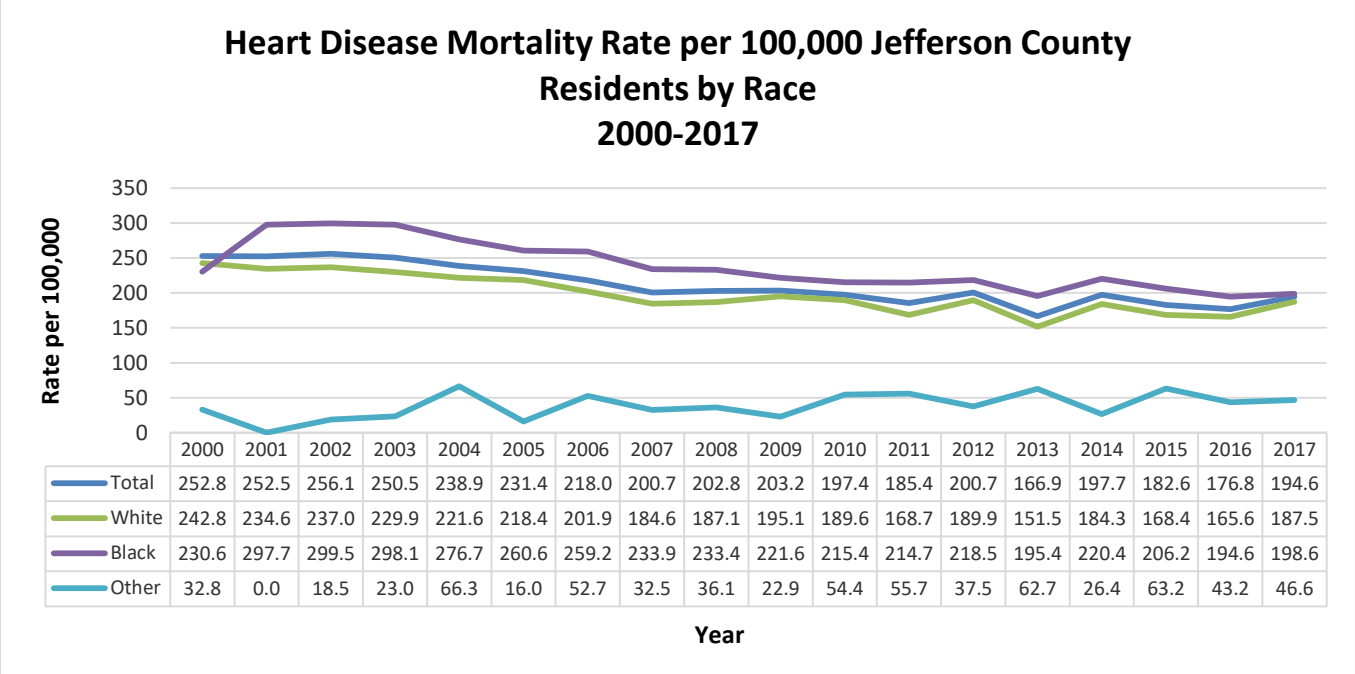
The following table lists the ten leading causes of death within Jefferson County for the years 2003, 2012 and 2017.

Ten Leading Causes of Death in Jefferson County		
Reference Data (2003)	**Index Data (2012)**	**Endpoint Data (2017)**
1. Heart Disease	**1. Heart Disease**	**1. Heart Disease**
2. Cancer	**2. Cancer**	**2. Cancer**
3. Cerebrovascular Disease	**3. Cerebrovascular Disease**	**3. Cerebrovascular Disease**
4. Unintentional Injuries	**4. Chronic Lower Respiratory Disease**	**4. Unintentional Injuries**
5. Chronic Lower Respiratory Disease	**5. Unintentional Injuries**	**5. Chronic Lower Respiratory Disease**
6. Diabetes	**6. Kidney Disease**	**6. Alzheimer's Disease**
7. Kidney Disease	**7. Diabetes**	**7. Pneumonia and Influenza**

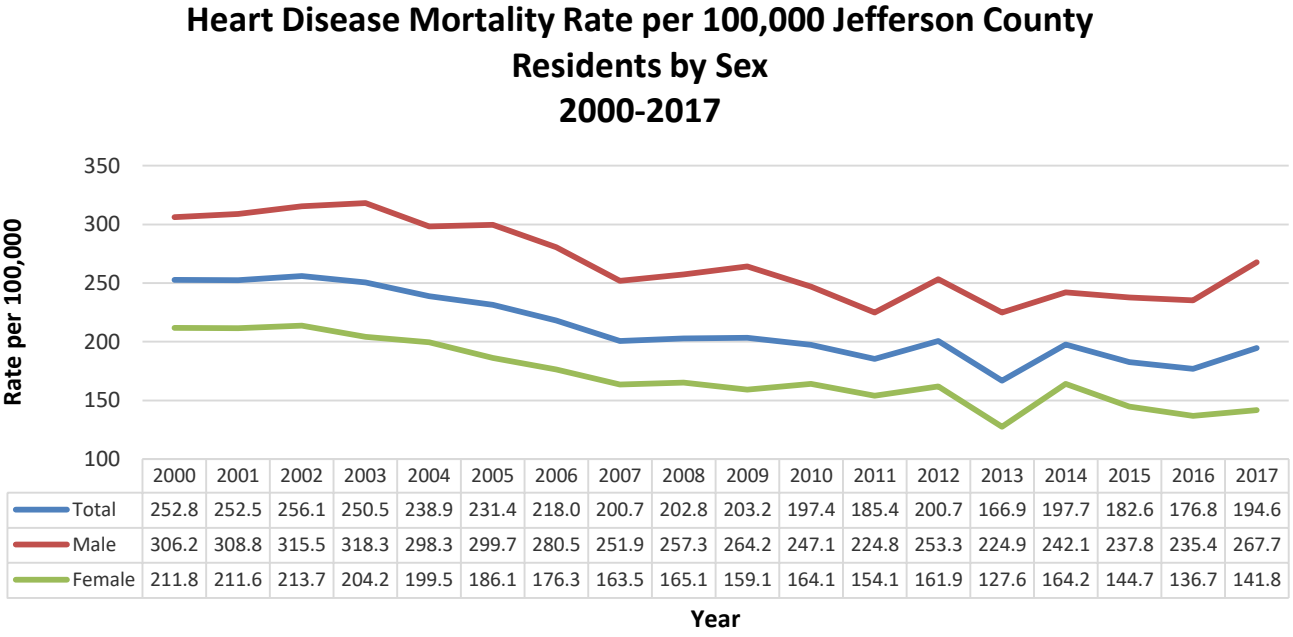
8. Pneumonia and Influenza	**8. Septicemia**	**8. Septicemia**
9. Alzheimer's Disease	**9. Alzheimer's Disease**	**9. Diabetes**
10. Homicide	**10. Pneumonia and Influenza**	**10. Homicide**

Heart Disease Mortality

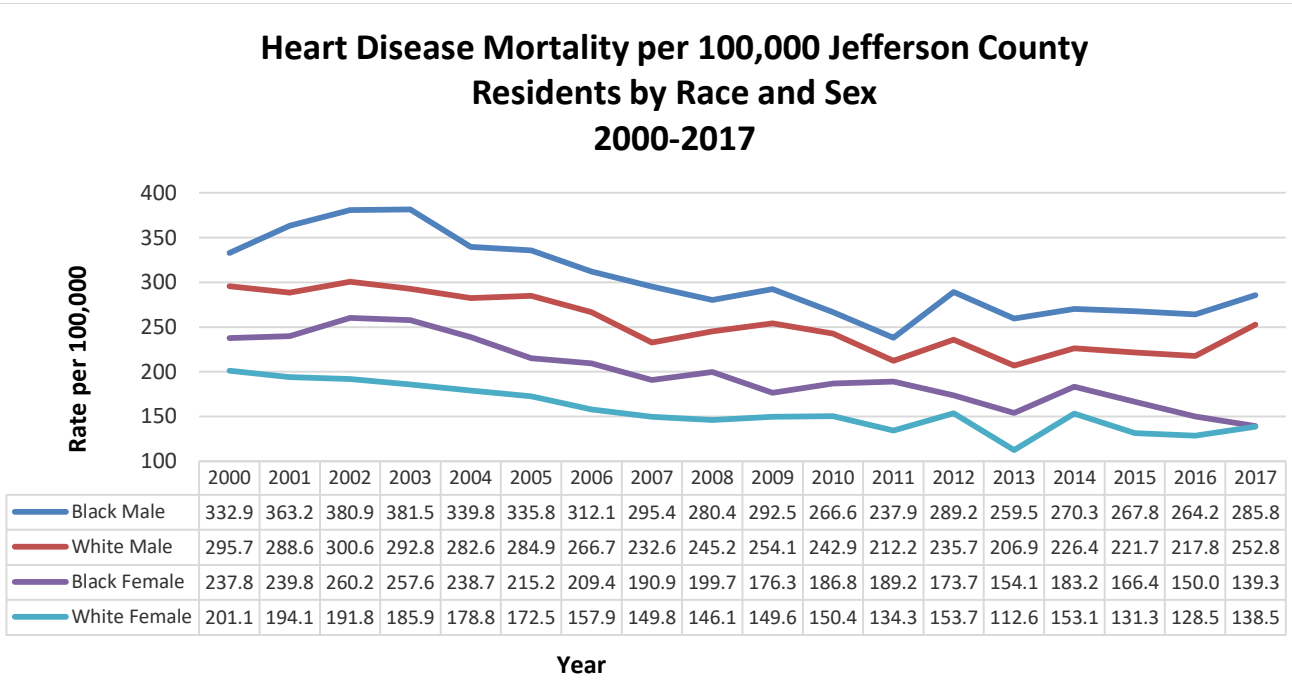
Heart disease remained the leading cause of death in Jefferson County in 2017. In 2012, the heart disease mortality rate was 200.7 per 100,000 population. In 2017, the overall heart disease mortality rate decreased to 194.6 per 100,000 population. This decreasing trend in heart disease mortality was observed across the white and the black sub-populations. The heart disease mortality rate disparity between black and white sub-populations declined. However, heart disease mortality rates increased for males while decreasing for females from 2012 to 2017. Heart disease mortality rates among individuals of other races are trending higher.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	252.8	252.5	256.1	250.5	238.9	231.4	218.0	200.7	202.8	203.2	197.4	185.4	200.7	166.9	197.7	182.6	176.8	194.6
White	242.8	234.6	237.0	229.9	221.6	218.4	201.9	184.6	187.1	195.1	189.6	168.7	189.9	151.5	184.3	168.4	165.6	187.5
Black	230.6	297.7	299.5	298.1	276.7	260.6	259.2	233.9	233.4	221.6	215.4	214.7	218.5	195.4	220.4	206.2	194.6	198.6
Other	32.8	0.0	18.5	23.0	66.3	16.0	52.7	32.5	36.1	22.9	54.4	55.7	37.5	62.7	26.4	63.2	43.2	46.6



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	252.8	252.5	256.1	250.5	238.9	231.4	218.0	200.7	202.8	203.2	197.4	185.4	200.7	166.9	197.7	182.6	176.8	194.6
Male	306.2	308.8	315.5	318.3	298.3	299.7	280.5	251.9	257.3	264.2	247.1	224.8	253.3	224.9	242.1	237.8	235.4	267.7
Female	211.8	211.6	213.7	204.2	199.5	186.1	176.3	163.5	165.1	159.1	164.1	154.1	161.9	127.6	164.2	144.7	136.7	141.8

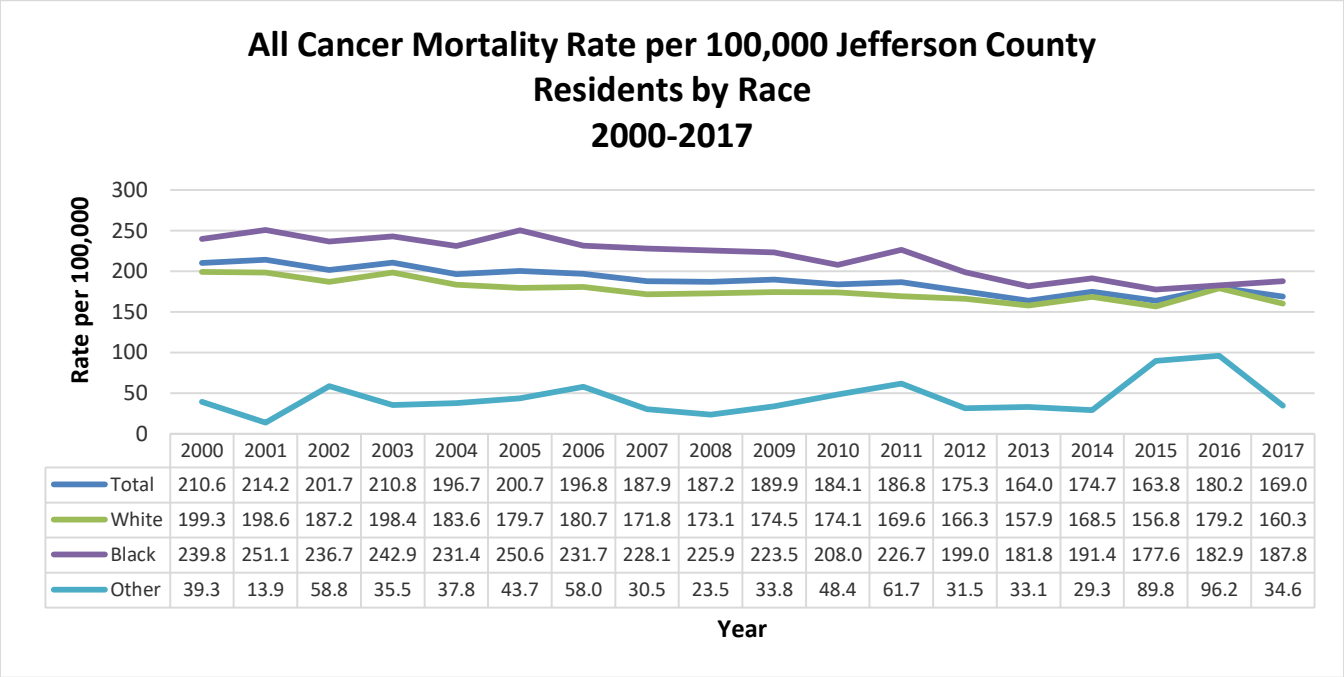


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Black Male	332.9	363.2	380.9	381.5	339.8	335.8	312.1	295.4	280.4	292.5	266.6	237.9	289.2	259.5	270.3	267.8	264.2	285.8
White Male	295.7	288.6	300.6	292.8	282.6	284.9	266.7	232.6	245.2	254.1	242.9	212.2	235.7	206.9	226.4	221.7	217.8	252.8
Black Female	237.8	239.8	260.2	257.6	238.7	215.2	209.4	190.9	199.7	176.3	186.8	189.2	173.7	154.1	183.2	166.4	150.0	139.3
White Female	201.1	194.1	191.8	185.9	178.8	172.5	157.9	149.8	146.1	149.6	150.4	134.3	153.7	112.6	153.1	131.3	128.5	138.5

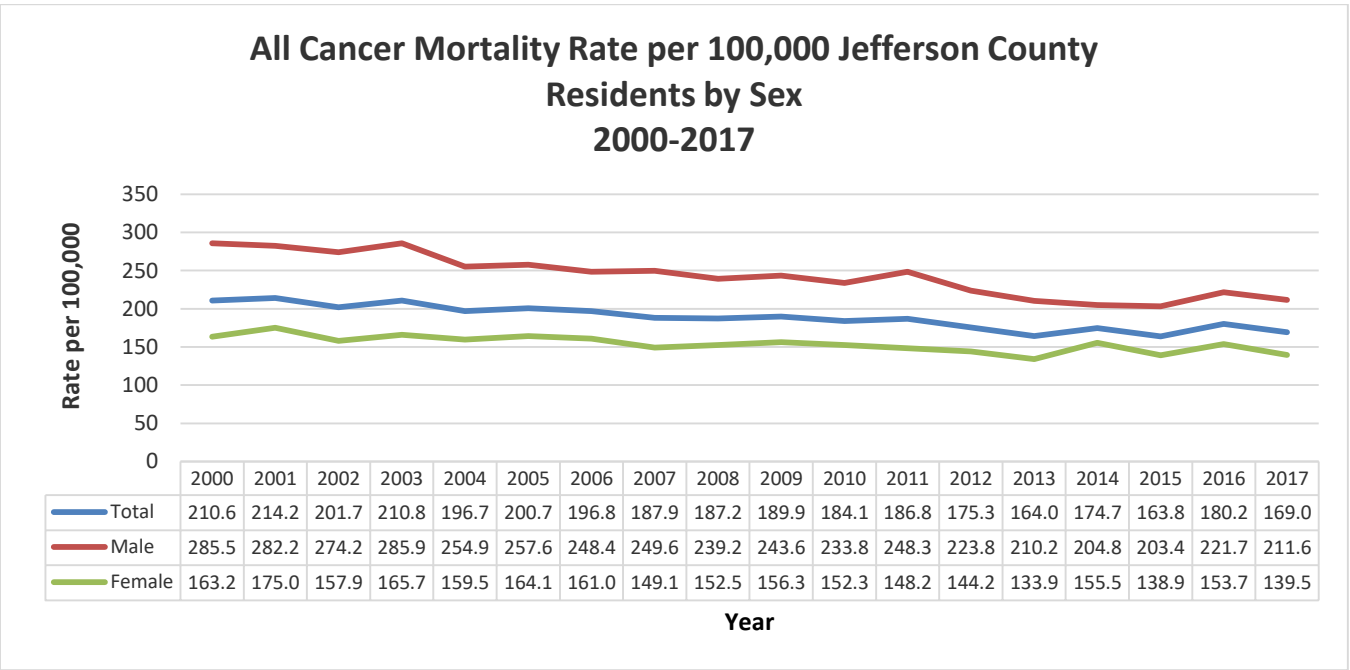
Cancer Mortality

Cancer was the second leading cause of death in Jefferson County in 2017. Overall cancer mortality trended down from 2000 to 2013. However, since 2013, the cancer mortality rate has fluctuated. The

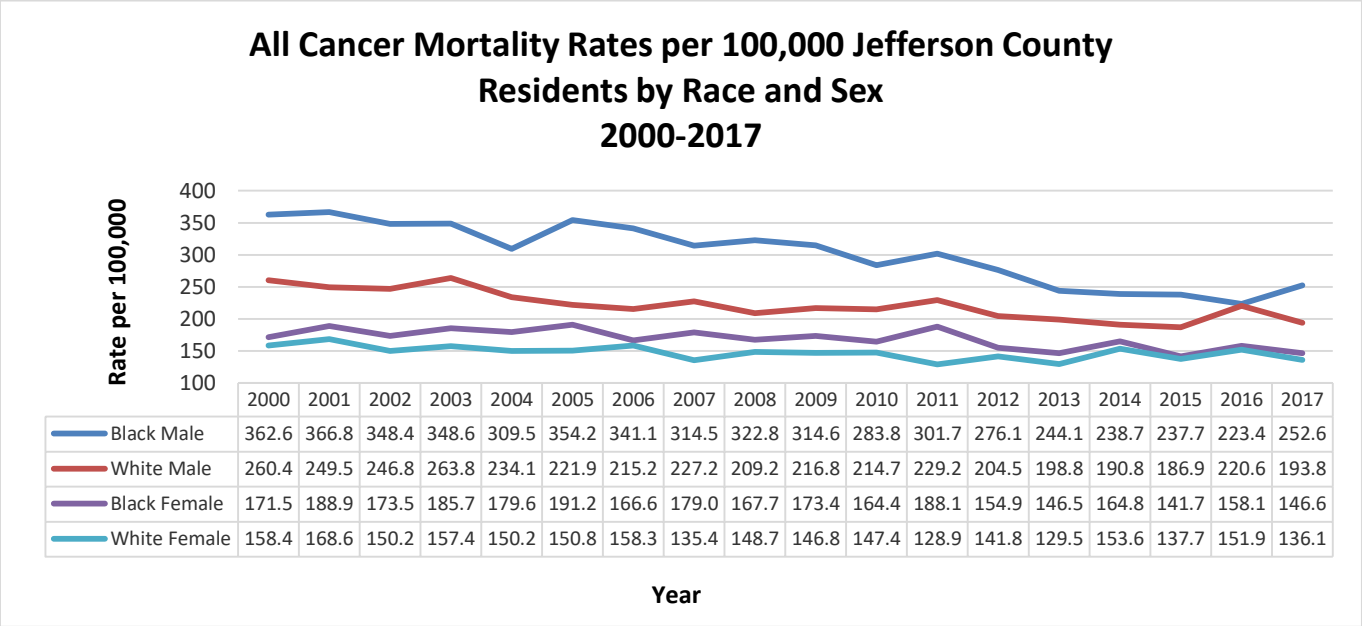
2017 overall cancer mortality rate of 169.0 per 100,000 population is 3.6% less than the 2012 overall cancer mortality rate of 175.3 per 100,000 population. This decreasing trend is observed in males and females, as well as in the white and black sub-populations. Among individuals of other races, the all cancer mortality rate varied more significantly on a year-to-year basis.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	210.6	214.2	201.7	210.8	196.7	200.7	196.8	187.9	187.2	189.9	184.1	186.8	175.3	164.0	174.7	163.8	180.2	169.0
White	199.3	198.6	187.2	198.4	183.6	179.7	180.7	171.8	173.1	174.5	174.1	169.6	166.3	157.9	168.5	156.8	179.2	160.3
Black	239.8	251.1	236.7	242.9	231.4	250.6	231.7	228.1	225.9	223.5	208.0	226.7	199.0	181.8	191.4	177.6	182.9	187.8
Other	39.3	13.9	58.8	35.5	37.8	43.7	58.0	30.5	23.5	33.8	48.4	61.7	31.5	33.1	29.3	89.8	96.2	34.6



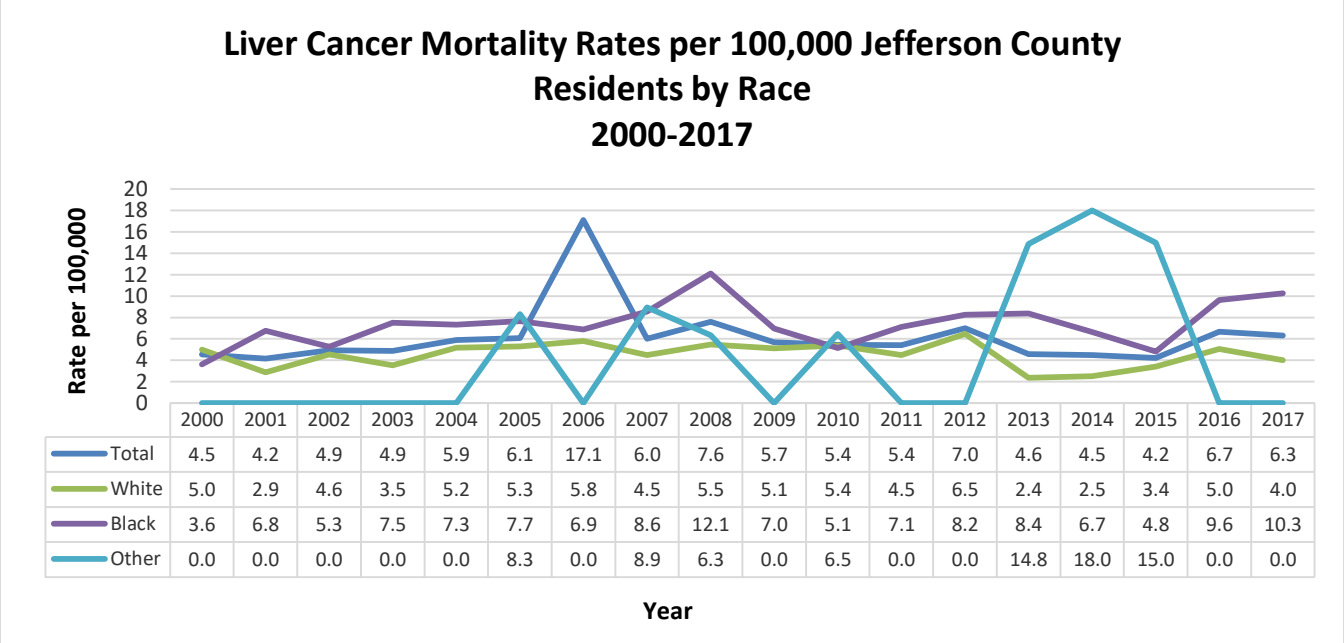
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	210.6	214.2	201.7	210.8	196.7	200.7	196.8	187.9	187.2	189.9	184.1	186.8	175.3	164.0	174.7	163.8	180.2	169.0
Male	285.5	282.2	274.2	285.9	254.9	257.6	248.4	249.6	239.2	243.6	233.8	248.3	223.8	210.2	204.8	203.4	221.7	211.6
Female	163.2	175.0	157.9	165.7	159.5	164.1	161.0	149.1	152.5	156.3	152.3	148.2	144.2	133.9	155.5	138.9	153.7	139.5



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Black Male	362.6	366.8	348.4	348.6	309.5	354.2	341.1	314.5	322.8	314.6	283.8	301.7	276.1	244.1	238.7	237.7	223.4	252.6
White Male	260.4	249.5	246.8	263.8	234.1	221.9	215.2	227.2	209.2	216.8	214.7	229.2	204.5	198.8	190.8	186.9	220.6	193.8
Black Female	171.5	188.9	173.5	185.7	179.6	191.2	166.6	179.0	167.7	173.4	164.4	188.1	154.9	146.5	164.8	141.7	158.1	146.6
White Female	158.4	168.6	150.2	157.4	150.2	150.8	158.3	135.4	148.7	146.8	147.4	128.9	141.8	129.5	153.6	137.7	151.9	136.1

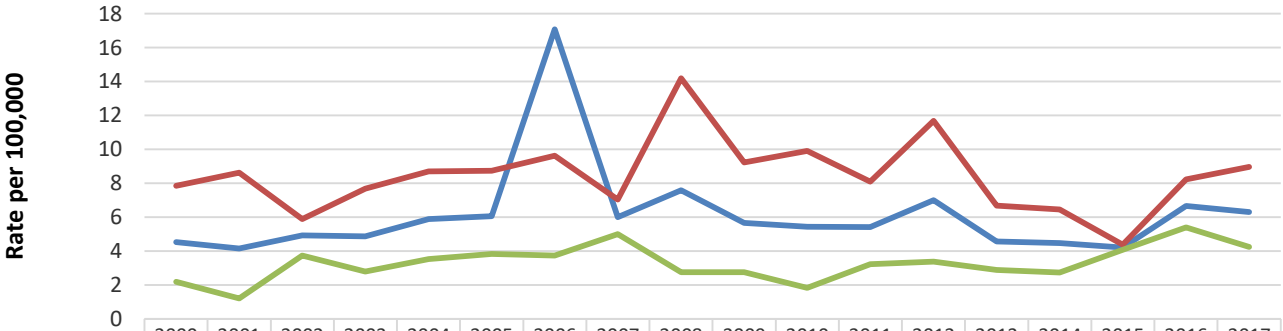
Liver Cancer

Liver cancer has a significant correlation with Hepatitis C infection. The 2017 liver cancer mortality rate of 6.3 per 100,000 population marked a 10% relative percent decrease from the 2012 rate of 7.0 per 100,000 population. Liver cancer mortality rates are higher among the black and male sub-populations. The increased liver cancer mortality rate was especially pronounced in black male residents of Jefferson County in 2017. The disparity in liver cancer rates between the black and white sub-populations increased between 2012 and 2017.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	4.5	4.2	4.9	4.9	5.9	6.1	17.1	6.0	7.6	5.7	5.4	5.4	7.0	4.6	4.5	4.2	6.7	6.3
White	5.0	2.9	4.6	3.5	5.2	5.3	5.8	4.5	5.5	5.1	5.4	4.5	6.5	2.4	2.5	3.4	5.0	4.0
Black	3.6	6.8	5.3	7.5	7.3	7.7	6.9	8.6	12.1	7.0	5.1	7.1	8.2	8.4	6.7	4.8	9.6	10.3
Other	0.0	0.0	0.0	0.0	0.0	8.3	0.0	8.9	6.3	0.0	6.5	0.0	0.0	14.8	18.0	15.0	0.0	0.0

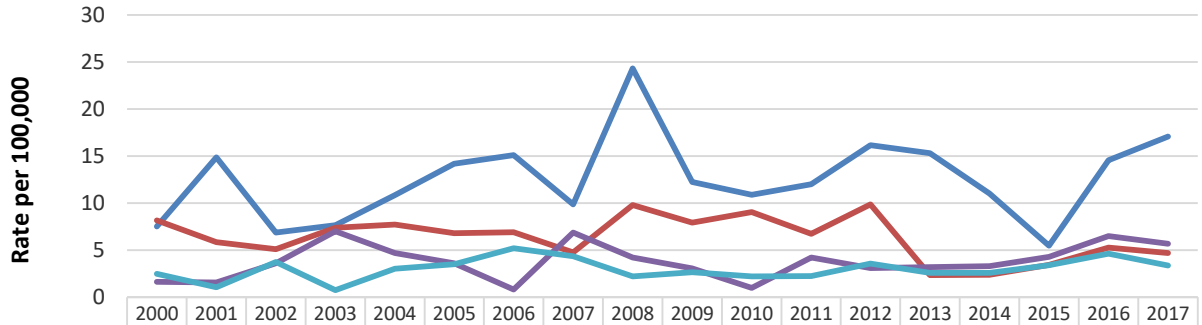
Liver Cancer Mortality Rates per 100,000 Jefferson County Residents by Sex 2000-2017



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	4.5	4.2	4.9	4.9	5.9	6.1	17.1	6.0	7.6	5.7	5.4	5.4	7.0	4.6	4.5	4.2	6.7	6.3
Male	7.8	8.6	5.9	7.7	8.7	8.7	9.6	7.1	14.2	9.2	9.9	8.1	11.7	6.7	6.5	4.4	8.2	9.0
Female	2.2	1.2	3.7	2.8	3.5	3.8	3.8	5.0	2.8	2.8	1.8	3.2	3.4	2.9	2.7	4.1	5.4	4.3

Year

Liver Cancer Mortality Rates per 100,000 Jefferson County Residents by Race and Sex 2000-2017



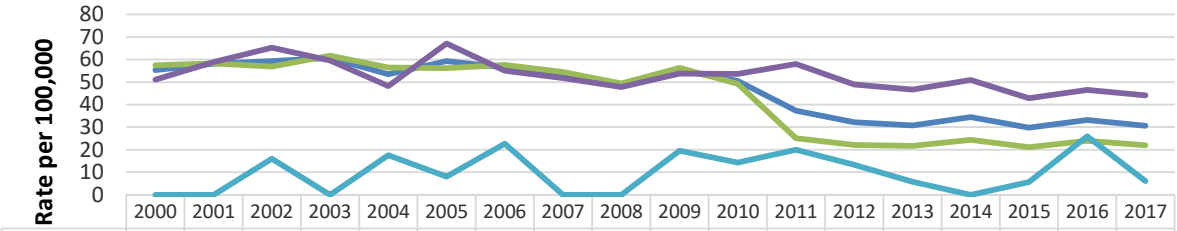
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Black Male	7.5	14.9	6.9	7.6	10.9	14.2	15.1	9.9	24.3	12.3	10.9	12.0	16.2	15.3	11.0	5.5	14.6	17.1
White Male	8.2	5.9	5.1	7.4	7.7	6.8	6.9	4.8	9.8	7.9	9.0	6.7	9.9	2.3	2.4	3.4	5.3	4.7
Black Female	1.6	1.6	3.6	7.0	4.7	3.6	0.8	6.9	4.2	3.1	1.0	4.2	3.1	3.2	3.3	4.3	6.5	5.7
White Female	2.5	1.0	3.7	0.8	3.0	3.5	5.2	4.4	2.2	2.7	2.2	2.3	3.6	2.6	2.6	3.4	4.6	3.4

Year

Lung Cancer

Lung cancer mortality is linked to smoking, exposure to second-hand smoke and other environmental risk factors such as asbestos exposure. Overall mortality rates for lung cancer have declined since the 2000 with the 2017 rate at 30.6 per 100,000 population. Between 2012 and 2017, the mortality rate from lung cancer declined 4.5%, and the race-based disparity in this cause of death also decreased.

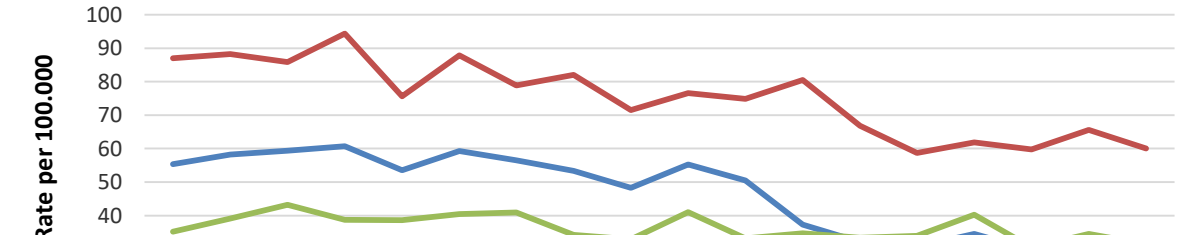
Lung Cancer Mortality Rates per 100,000 Jefferson County Residents by Race 2000-2017



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	55.3	58.2	59.3	60.7	53.5	59.3	56.5	53.3	48.3	55.3	50.5	37.3	32.2	30.7	34.5	29.7	33.2	30.6
White	57.4	58.4	56.9	61.8	56.4	56.2	57.6	54.4	49.4	56.3	49.2	25.1	22.2	21.6	24.3	21.1	23.9	22.0
Black	51.1	58.9	65.3	59.6	48.3	67.1	55.0	51.8	47.8	53.7	53.6	58.0	48.9	46.6	51.0	42.9	46.5	44.1
Other	0.0	0.0	16.0	0.0	17.6	8.0	22.6	0.0	0.0	19.6	14.2	19.9	13.2	5.8	0.0	5.7	25.9	6.1

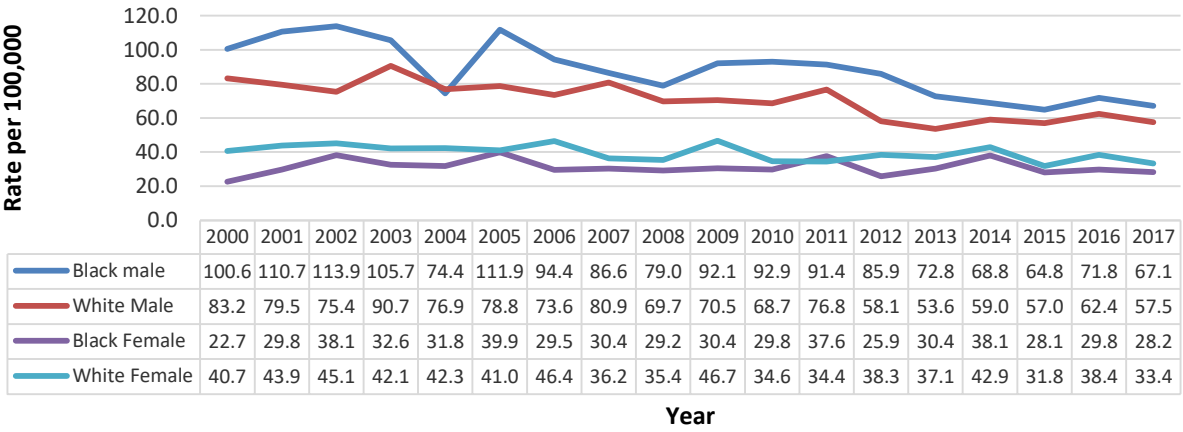
Year

Lung Cancer Mortality Rates per 100,000 Jefferson County Residents by Sex 2000-2017



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	55.3	58.2	59.3	60.7	53.5	59.3	56.5	53.3	48.3	55.3	50.5	37.3	32.2	30.7	34.5	29.7	33.2	30.6
Male	87.0	88.2	85.8	94.4	75.6	87.8	78.9	82.0	71.5	76.5	74.9	80.5	66.8	58.7	61.9	59.8	65.6	60.0
Female	35.1	39.1	43.2	38.7	38.6	40.4	41.0	34.2	32.9	41.0	33.2	34.7	33.3	34.0	40.2	30.5	34.5	31.5

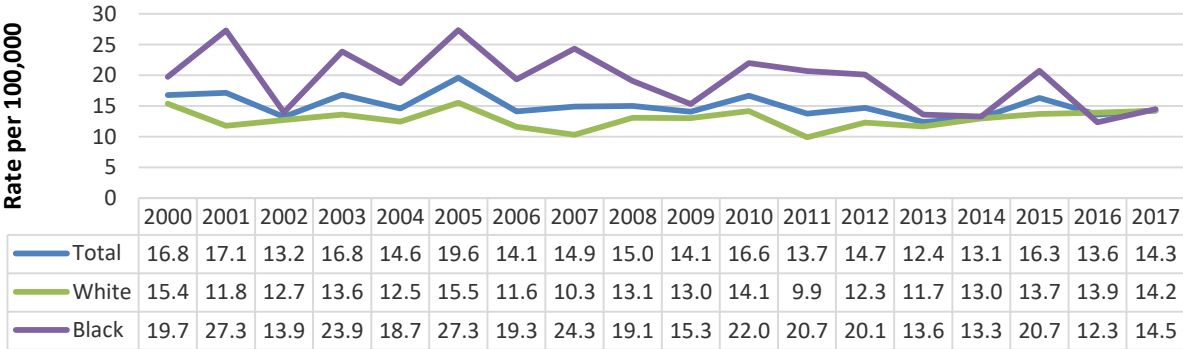
Year



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Black male	100.6	110.7	113.9	105.7	74.4	111.9	94.4	86.6	79.0	92.1	92.9	91.4	85.9	72.8	68.8	64.8	71.8	67.1
White Male	83.2	79.5	75.4	90.7	76.9	78.8	73.6	80.9	69.7	70.5	68.7	76.8	58.1	53.6	59.0	57.0	62.4	57.5
Black Female	22.7	29.8	38.1	32.6	31.8	39.9	29.5	30.4	29.2	30.4	29.8	37.6	25.9	30.4	38.1	28.1	29.8	28.2
White Female	40.7	43.9	45.1	42.1	42.3	41.0	46.4	36.2	35.4	46.7	34.6	34.4	38.3	37.1	42.9	31.8	38.4	33.4

Breast Cancer

Breast cancer mortality rates have fluctuated in Jefferson County between 12.4 and 16.3 deaths per 100,000 between 2012 and 2017. The overall rate of breast cancer deaths decreased from a rate of 14.7 per 100,000 population in 2012 to 14.3 per 100,000 population in 2017.

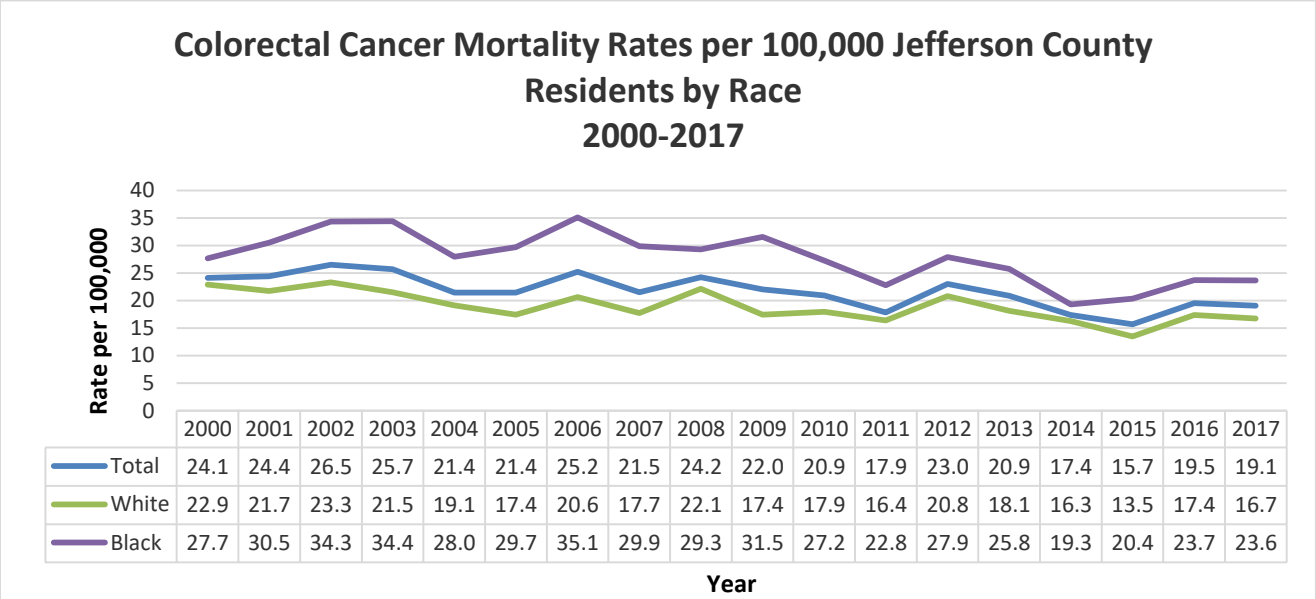


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	16.8	17.1	13.2	16.8	14.6	19.6	14.1	14.9	15.0	14.1	16.6	13.7	14.7	12.4	13.1	16.3	13.6	14.3
White	15.4	11.8	12.7	13.6	12.5	15.5	11.6	10.3	13.1	13.0	14.1	9.9	12.3	11.7	13.0	13.7	13.9	14.2
Black	19.7	27.3	13.9	23.9	18.7	27.3	19.3	24.3	19.1	15.3	22.0	20.7	20.1	13.6	13.3	20.7	12.3	14.5

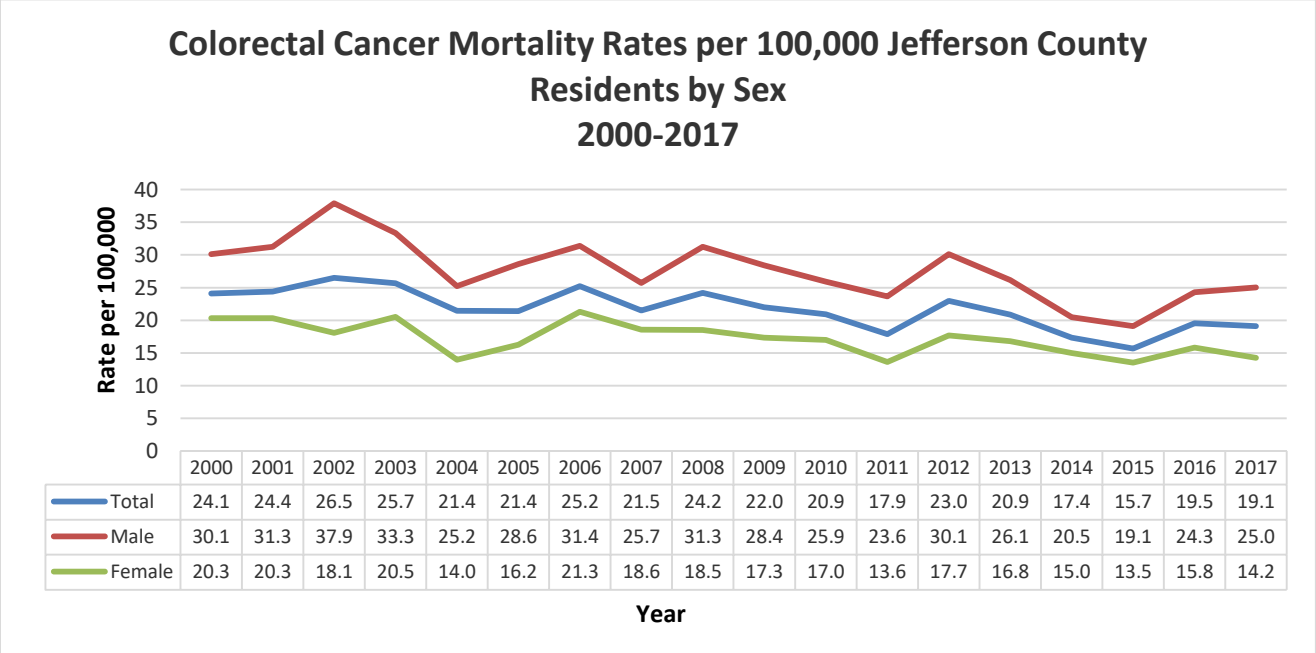
Colorectal Cancer

Overall, colorectal cancer mortality rates have experienced a relative percent change of 17% from the 2012 rate of 23.0 deaths per 100,000 population to 19.1 deaths per 100,000 population in 2017. Rate declines between 2012 and 2017 were noted among the white and black sub-populations and among

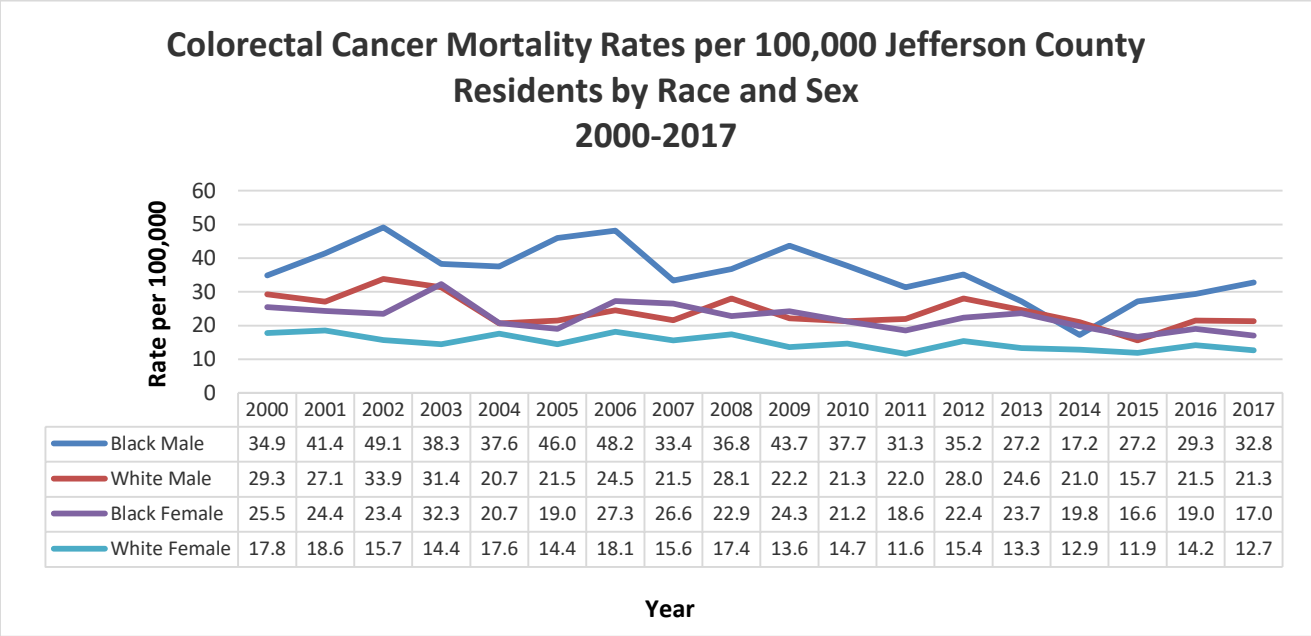
males and females. Additionally, the race-based disparity in colorectal cancer rates slightly declined between 2012 and 2017.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	24.1	24.4	26.5	25.7	21.4	21.4	25.2	21.5	24.2	22.0	20.9	17.9	23.0	20.9	17.4	15.7	19.5	19.1
White	22.9	21.7	23.3	21.5	19.1	17.4	20.6	17.7	22.1	17.4	17.9	16.4	20.8	18.1	16.3	13.5	17.4	16.7
Black	27.7	30.5	34.3	34.4	28.0	29.7	35.1	29.9	29.3	31.5	27.2	22.8	27.9	25.8	19.3	20.4	23.7	23.6



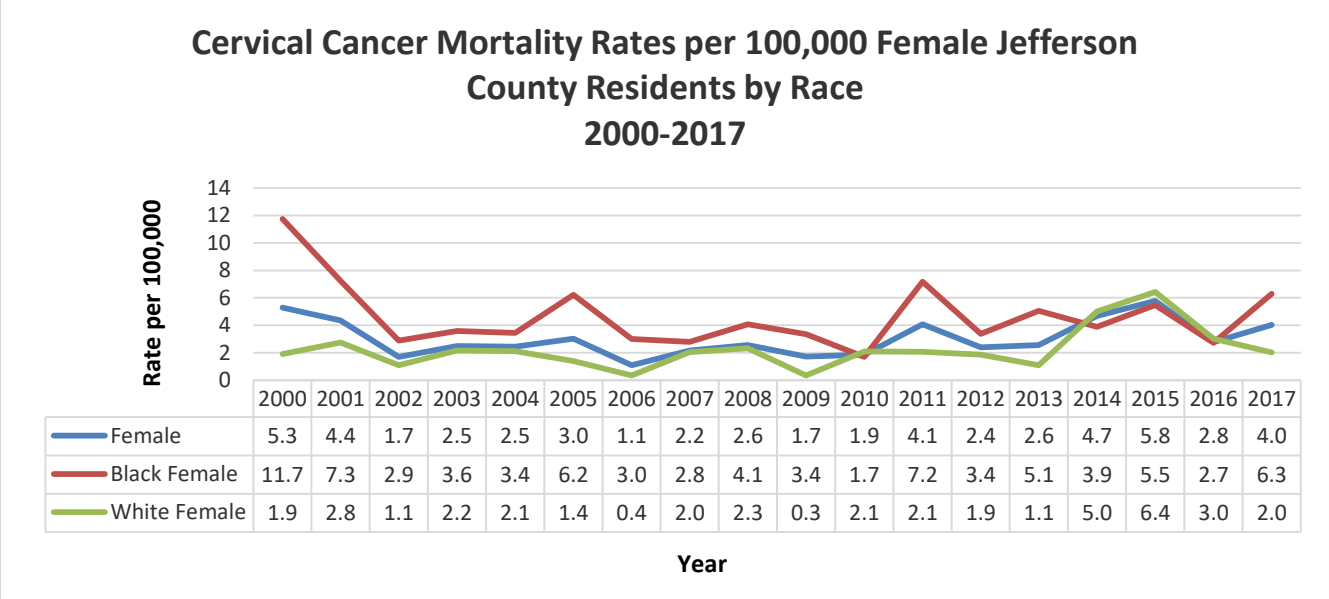
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	24.1	24.4	26.5	25.7	21.4	21.4	25.2	21.5	24.2	22.0	20.9	17.9	23.0	20.9	17.4	15.7	19.5	19.1
Male	30.1	31.3	37.9	33.3	25.2	28.6	31.4	25.7	31.3	28.4	25.9	23.6	30.1	26.1	20.5	19.1	24.3	25.0
Female	20.3	20.3	18.1	20.5	14.0	16.2	21.3	18.6	18.5	17.3	17.0	13.6	17.7	16.8	15.0	13.5	15.8	14.2



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Black Male	34.9	41.4	49.1	38.3	37.6	46.0	48.2	33.4	36.8	43.7	37.7	31.3	35.2	27.2	17.2	27.2	29.3	32.8
White Male	29.3	27.1	33.9	31.4	20.7	21.5	24.5	21.5	28.1	22.2	21.3	22.0	28.0	24.6	21.0	15.7	21.5	21.3
Black Female	25.5	24.4	23.4	32.3	20.7	19.0	27.3	26.6	22.9	24.3	21.2	18.6	22.4	23.7	19.8	16.6	19.0	17.0
White Female	17.8	18.6	15.7	14.4	17.6	14.4	18.1	15.6	17.4	13.6	14.7	11.6	15.4	13.3	12.9	11.9	14.2	12.7

Cervical Cancer

The 2017 cervical cancer mortality rate of 4.0 deaths per 100,000 females is 66.7% higher than the 2012 rate of 2.4 per 100,000 females. Cervical cancer rates among increased among the white and black sub-populations, with a larger increase in the black sub-population.

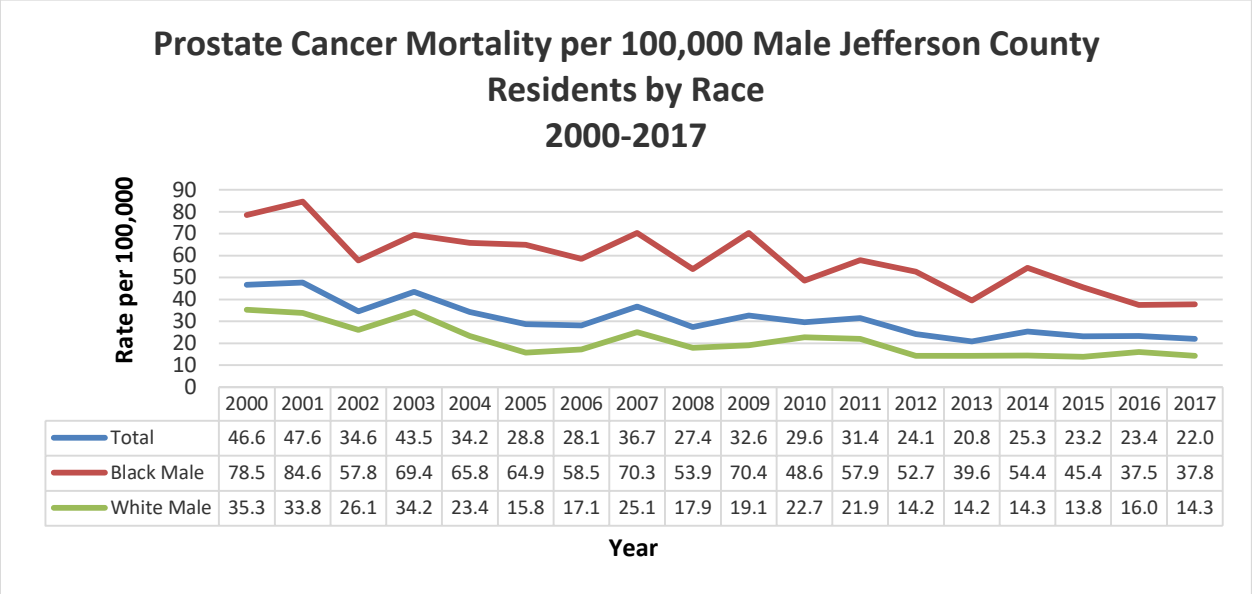


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Female	5.3	4.4	1.7	2.5	2.5	3.0	1.1	2.2	2.6	1.7	1.9	4.1	2.4	2.6	4.7	5.8	2.8	4.0
Black Female	11.7	7.3	2.9	3.6	3.4	6.2	3.0	2.8	4.1	3.4	1.7	7.2	3.4	5.1	3.9	5.5	2.7	6.3
White Female	1.9	2.8	1.1	2.2	2.1	1.4	0.4	2.0	2.3	0.3	2.1	2.1	1.9	1.1	5.0	6.4	3.0	2.0

Prostate Cancer

Prostate cancer mortality decreased by 8.7% (relative percent change) from the 2012 rate of 24.1 per 100,000 males to the 2017 rate of 22.0 per 100,000 males. Prostate cancer mortality rates declined

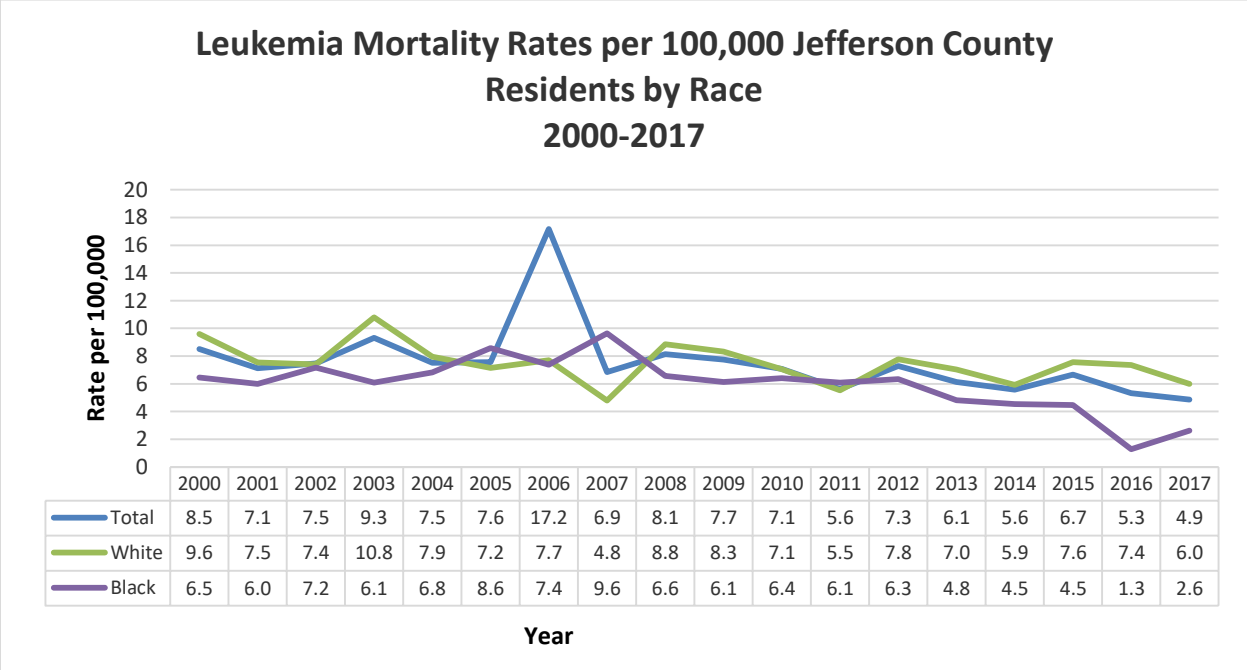
among white and black males, and the disparity in mortality rates between the white and black sub-populations declined by 4.6 deaths between 2012 and 2017 and was statistically significant.



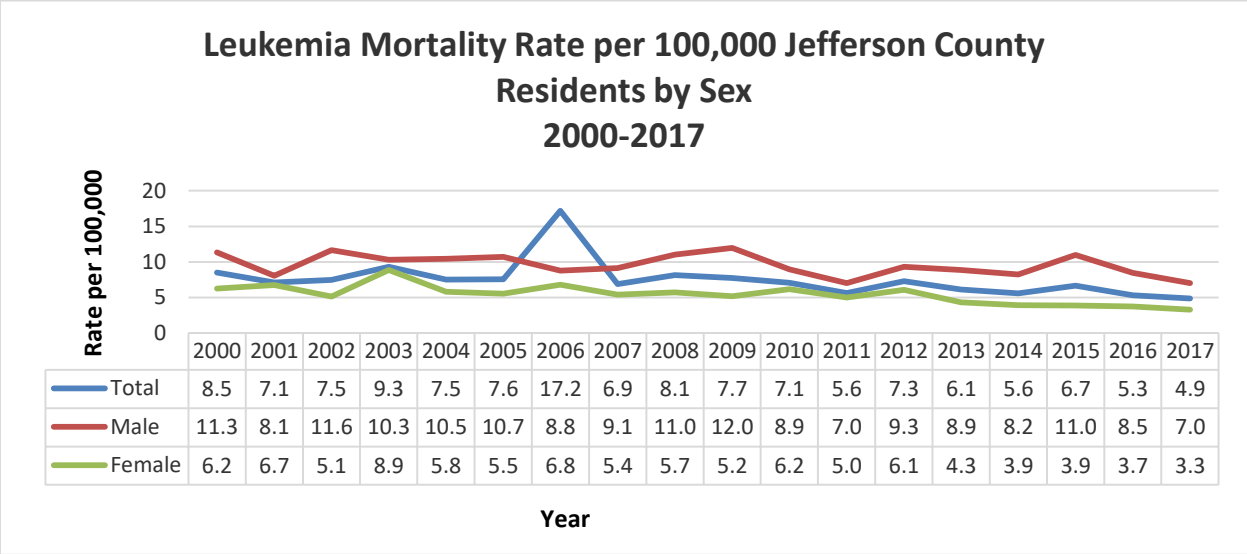
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	46.6	47.6	34.6	43.5	34.2	28.8	28.1	36.7	27.4	32.6	29.6	31.4	24.1	20.8	25.3	23.2	23.4	22.0
Black Male	78.5	84.6	57.8	69.4	65.8	64.9	58.5	70.3	53.9	70.4	48.6	57.9	52.7	39.6	54.4	45.4	37.5	37.8
White Male	35.3	33.8	26.1	34.2	23.4	15.8	17.1	25.1	17.9	19.1	22.7	21.9	14.2	14.2	14.3	13.8	16.0	14.3

Leukemia

The overall leukemia mortality rate decreased by 49% (relative percent change) from the 2012 rate of 7.3 per 100,000 population to 4.9 per 100,000 population in 2017. Leukemia mortality rates declined between 2012 and 2017 for both the white and black sub-populations and among males and females during this time frame.



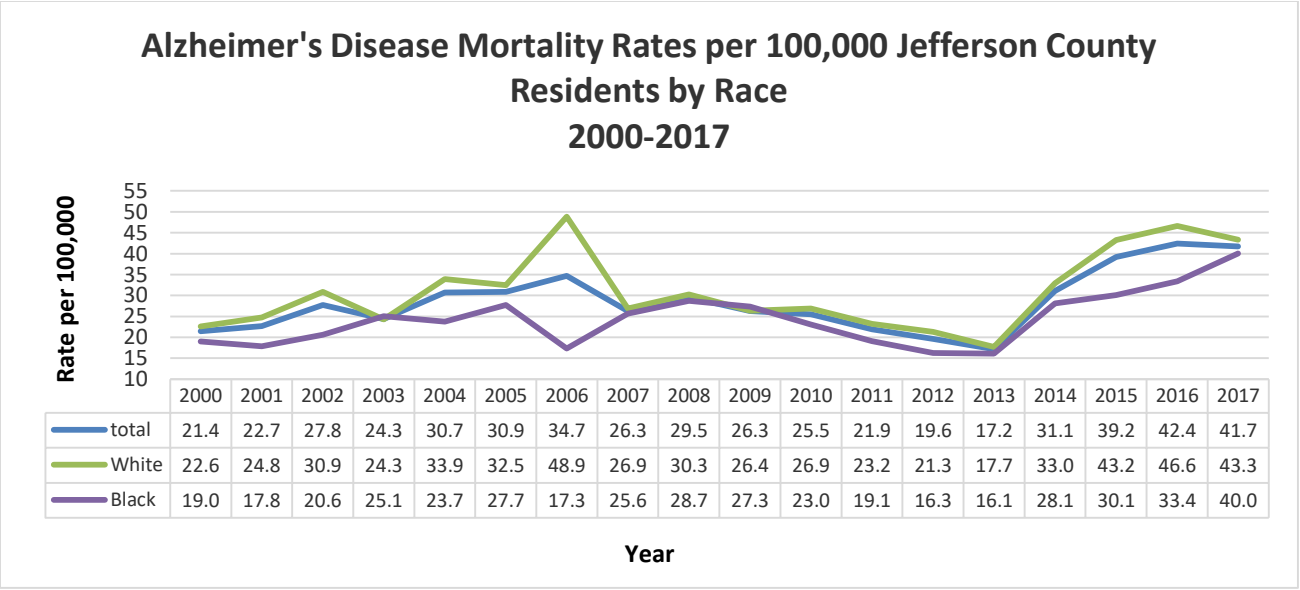
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	8.5	7.1	7.5	9.3	7.5	7.6	17.2	6.9	8.1	7.7	7.1	5.6	7.3	6.1	5.6	6.7	5.3	4.9
White	9.6	7.5	7.4	10.8	7.9	7.2	7.7	4.8	8.8	8.3	7.1	5.5	7.8	7.0	5.9	7.6	7.4	6.0
Black	6.5	6.0	7.2	6.1	6.8	8.6	7.4	9.6	6.6	6.1	6.4	6.1	6.3	4.8	4.5	4.5	1.3	2.6



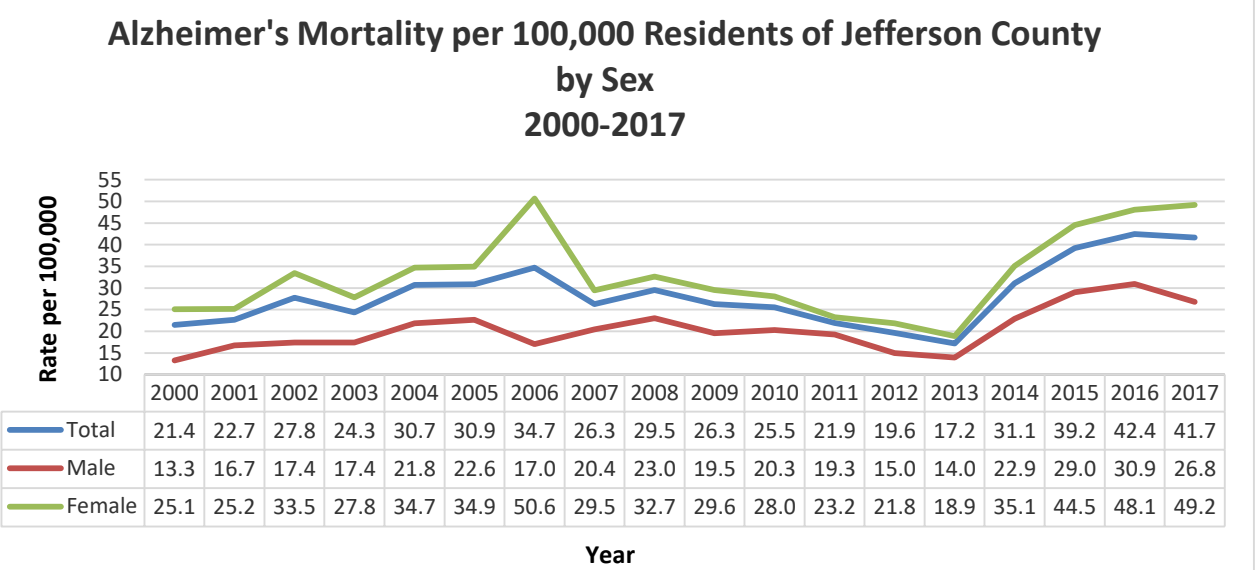
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	8.5	7.1	7.5	9.3	7.5	7.6	17.2	6.9	8.1	7.7	7.1	5.6	7.3	6.1	5.6	6.7	5.3	4.9
Male	11.3	8.1	11.6	10.3	10.5	10.7	8.8	9.1	11.0	12.0	8.9	7.0	9.3	8.9	8.2	11.0	8.5	7.0
Female	6.2	6.7	5.1	8.9	5.8	5.5	6.8	5.4	5.7	5.2	6.2	5.0	6.1	4.3	3.9	3.9	3.7	3.3

Alzheimer's Disease Mortality

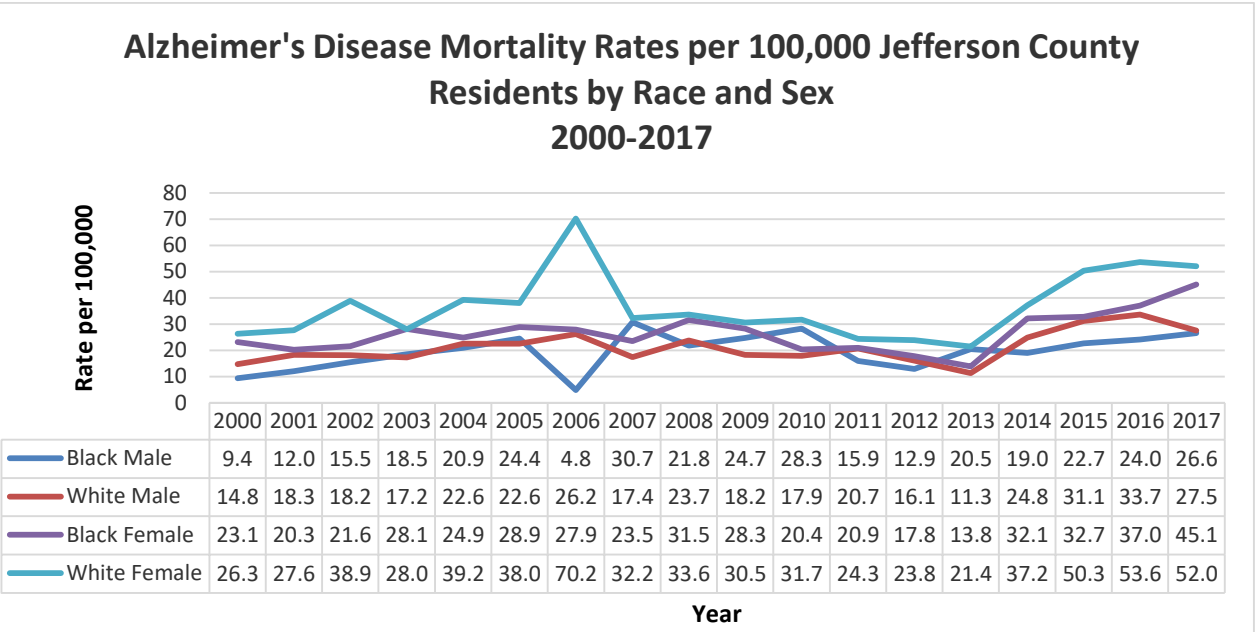
Alzheimer's disease was the ninth leading cause of death in Jefferson County in 2003 and 2012. In 2017, Alzheimer's disease became the sixth leading cause of death in the county. This irreversible progressive brain disease destroys memory and cognitive abilities, and its mortality rate has increased since 2011. The 2017 Alzheimer's disease mortality rate of 41.7 per 100,000 population is 113% higher (relative percent change) than the 2012 Alzheimer's disease mortality rate of 19.6 per 100,000 population. White females typically experience the highest Alzheimer's disease mortality rates within Jefferson County, and the 2017 Alzheimer's mortality rates were statistically significantly higher for both the white and black sub-populations than in 2012. The mortality rate disparity by race declined between 2012 and 2017.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
total	21.4	22.7	27.8	24.3	30.7	30.9	34.7	26.3	29.5	26.3	25.5	21.9	19.6	17.2	31.1	39.2	42.4	41.7
White	22.6	24.8	30.9	24.3	33.9	32.5	48.9	26.9	30.3	26.4	26.9	23.2	21.3	17.7	33.0	43.2	46.6	43.3
Black	19.0	17.8	20.6	25.1	23.7	27.7	17.3	25.6	28.7	27.3	23.0	19.1	16.3	16.1	28.1	30.1	33.4	40.0



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	21.4	22.7	27.8	24.3	30.7	30.9	34.7	26.3	29.5	26.3	25.5	21.9	19.6	17.2	31.1	39.2	42.4	41.7
Male	13.3	16.7	17.4	17.4	21.8	22.6	17.0	20.4	23.0	19.5	20.3	19.3	15.0	14.0	22.9	29.0	30.9	26.8
Female	25.1	25.2	33.5	27.8	34.7	34.9	50.6	29.5	32.7	29.6	28.0	23.2	21.8	18.9	35.1	44.5	48.1	49.2

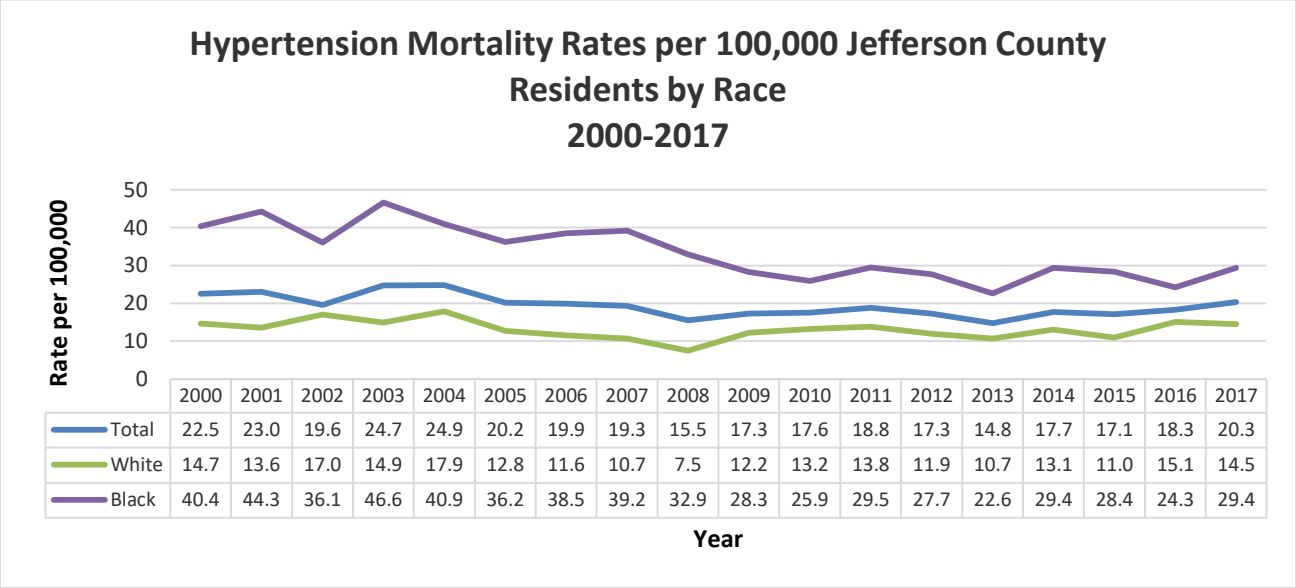


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Black Male	9.4	12.0	15.5	18.5	20.9	24.4	4.8	30.7	21.8	24.7	28.3	15.9	12.9	20.5	19.0	22.7	24.0	26.6
White Male	14.8	18.3	18.2	17.2	22.6	22.6	26.2	17.4	23.7	18.2	17.9	20.7	16.1	11.3	24.8	31.1	33.7	27.5
Black Female	23.1	20.3	21.6	28.1	24.9	28.9	27.9	23.5	31.5	28.3	20.4	20.9	17.8	13.8	32.1	32.7	37.0	45.1
White Female	26.3	27.6	38.9	28.0	39.2	38.0	70.2	32.2	33.6	30.5	31.7	24.3	23.8	21.4	37.2	50.3	53.6	52.0

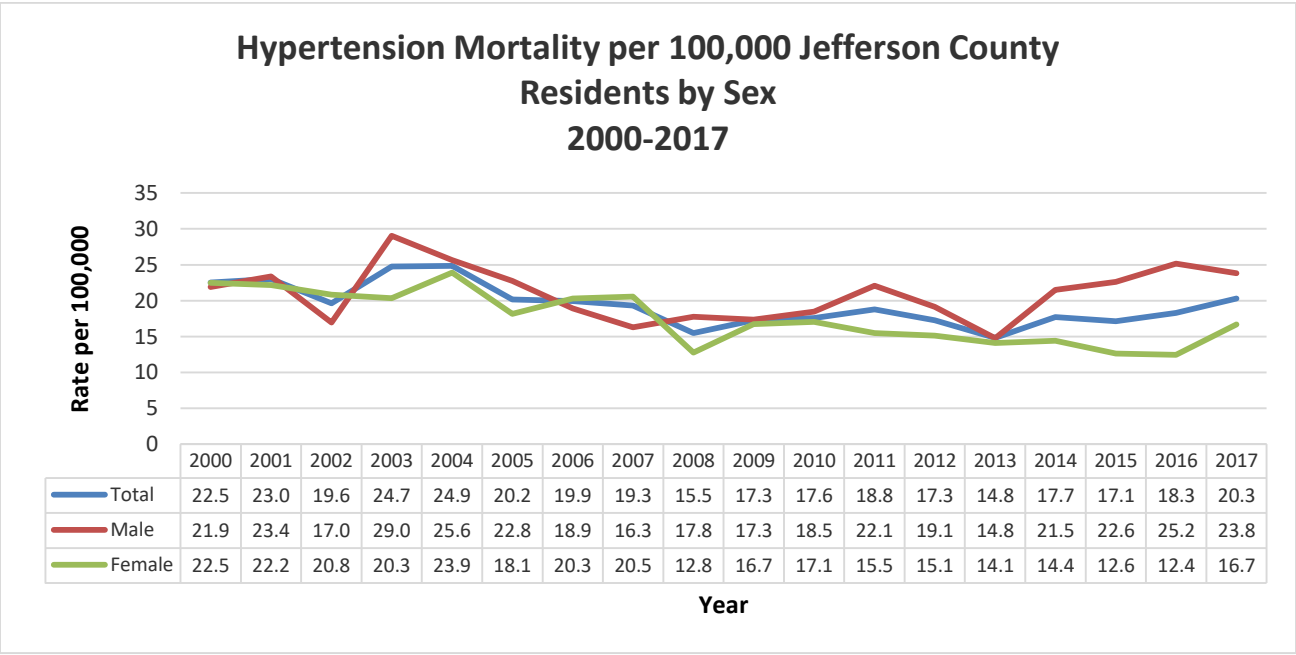
Hypertension Mortality

Hypertension is the most common form of cardiovascular disease in the United States. Hypertension, or high blood pressure, is defined as a blood pressure reading of at least 130/80 or higher on two separate occasions. Hypertension mortality has increased from the 2012 rate of 17.3 per 100,000 population to 20.3 per 100,000 population in 2017. Hypertension mortality rates remain higher in the black sub-

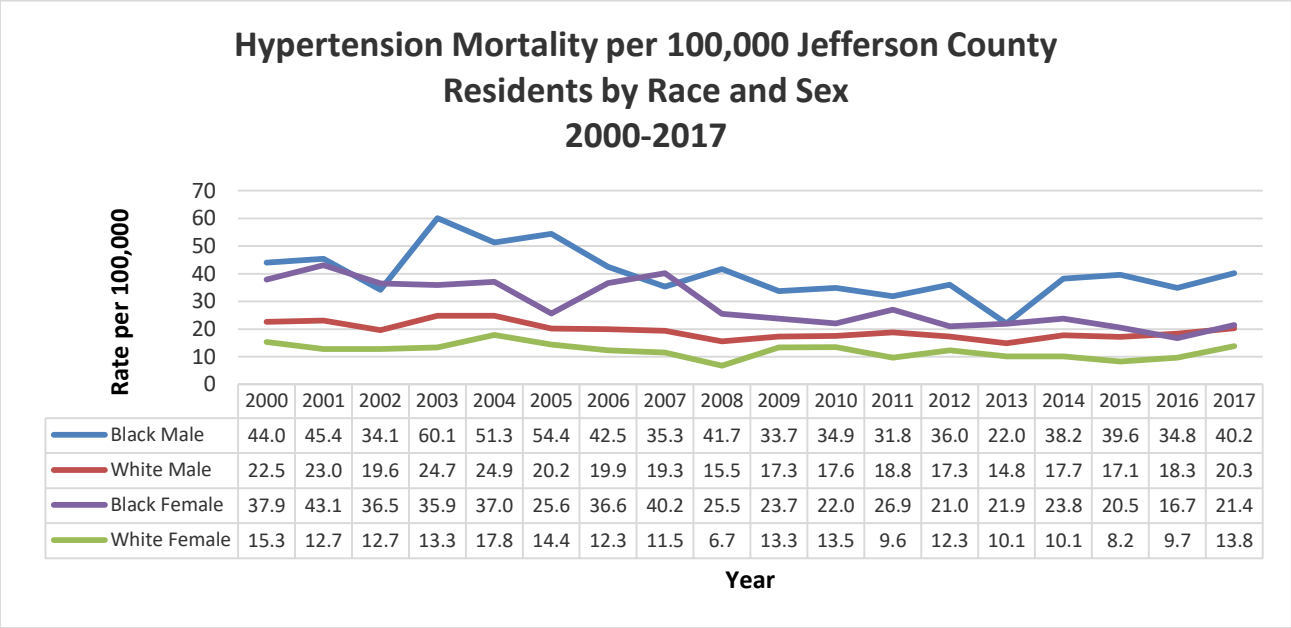
population as compared to the white sub-population; however, the gap between the rates has overall demonstrated decline since 2008.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	22.5	23.0	19.6	24.7	24.9	20.2	19.9	19.3	15.5	17.3	17.6	18.8	17.3	14.8	17.7	17.1	18.3	20.3
White	14.7	13.6	17.0	14.9	17.9	12.8	11.6	10.7	7.5	12.2	13.2	13.8	11.9	10.7	13.1	11.0	15.1	14.5
Black	40.4	44.3	36.1	46.6	40.9	36.2	38.5	39.2	32.9	28.3	25.9	29.5	27.7	22.6	29.4	28.4	24.3	29.4



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	22.5	23.0	19.6	24.7	24.9	20.2	19.9	19.3	15.5	17.3	17.6	18.8	17.3	14.8	17.7	17.1	18.3	20.3
Male	21.9	23.4	17.0	29.0	25.6	22.8	18.9	16.3	17.8	17.3	18.5	22.1	19.1	14.8	21.5	22.6	25.2	23.8
Female	22.5	22.2	20.8	20.3	23.9	18.1	20.3	20.5	12.8	16.7	17.1	15.5	15.1	14.1	14.4	12.6	12.4	16.7

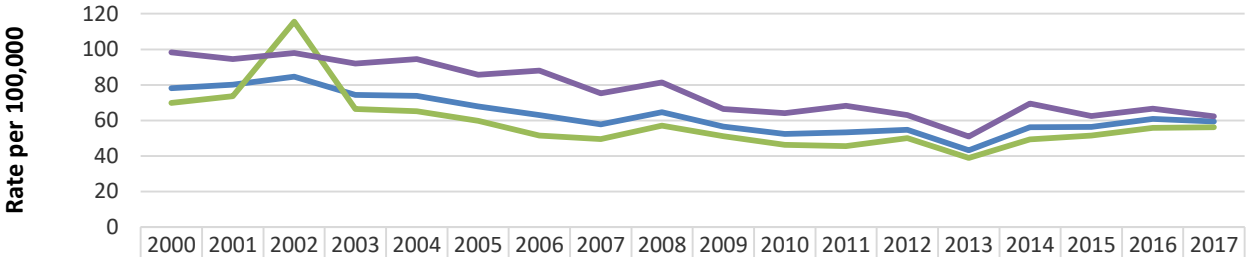


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Black Male	44.0	45.4	34.1	60.1	51.3	54.4	42.5	35.3	41.7	33.7	34.9	31.8	36.0	22.0	38.2	39.6	34.8	40.2
White Male	22.5	23.0	19.6	24.7	24.9	20.2	19.9	19.3	15.5	17.3	17.6	18.8	17.3	14.8	17.7	17.1	18.3	20.3
Black Female	37.9	43.1	36.5	35.9	37.0	25.6	36.6	40.2	25.5	23.7	22.0	26.9	21.0	21.9	23.8	20.5	16.7	21.4
White Female	15.3	12.7	12.7	13.3	17.8	14.4	12.3	11.5	6.7	13.3	13.5	9.6	12.3	10.1	10.1	8.2	9.7	13.8

Cerebrovascular Disease Mortality

Cerebrovascular disease includes all disorders in which an area of the brain is temporarily or permanently damaged due to ischemia or bleeding from one or more of the cerebral blood vessels. Cerebrovascular disease includes stroke, aneurysm, and vascular malformations. Cerebrovascular disease also includes vertebral, carotid and intracranial stenosis. Cerebrovascular disease mortality was the third leading cause of death in Jefferson County during in 2017. Since 2012, the overall cerebrovascular disease mortality rates increased to the 2017 rate of 59.5 deaths per 100,000 population. Cerebrovascular disease mortality rates have trended downward over the past 17 years for the black and white sub-populations. The black sub-populations rate of death from cerebrovascular disease has consistently remained higher than for the white sub-population; however, between 2012 and 2017, the disparity in rates diminished. Among individuals of other races, cerebrovascular disease mortality rates fluctuated, and no trend can be determined at this time.

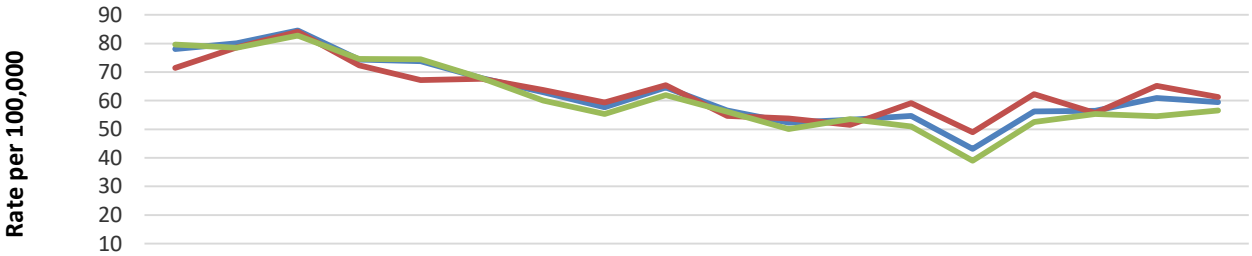
Cerebrovascular Disease Mortality per 100,000 Jefferson County Residents by Race 2000-2017



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	78.1	80.1	84.6	74.3	73.8	67.9	62.9	57.7	64.6	56.6	52.4	53.4	54.7	43.1	56.2	56.4	60.9	59.5
White	69.9	73.7	115.5	66.5	65.2	59.8	51.6	49.5	57.1	51.2	46.2	45.6	50.1	39.0	49.4	51.6	55.8	56.2
Black	98.3	94.5	98.0	91.9	94.5	85.6	88.0	75.3	81.4	66.4	64.1	68.3	63.0	50.9	69.5	62.4	66.6	62.3

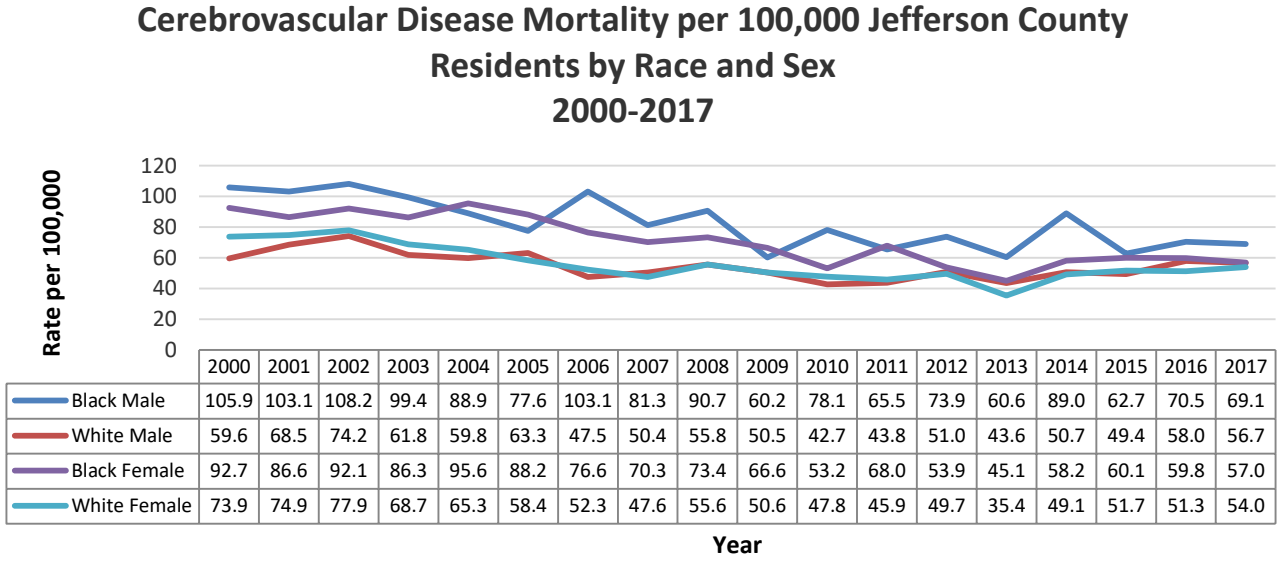
Year

Cerebrovascular Disease Mortality per 100,000 Jefferson County Residents by Sex 2000-2017



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	78.1	80.1	84.6	74.3	73.8	67.9	62.9	57.7	64.6	56.6	52.4	53.4	54.7	43.1	56.2	56.4	60.9	59.5
Male	71.5	78.7	84.1	72.4	67.3	67.7	63.7	59.4	65.4	54.6	53.8	51.5	59.1	49.0	62.3	55.7	65.2	61.3
Female	79.6	78.5	82.8	74.6	74.4	67.9	60.1	55.4	62.0	56.1	50.1	53.6	51.0	39.0	52.5	55.4	54.5	56.6

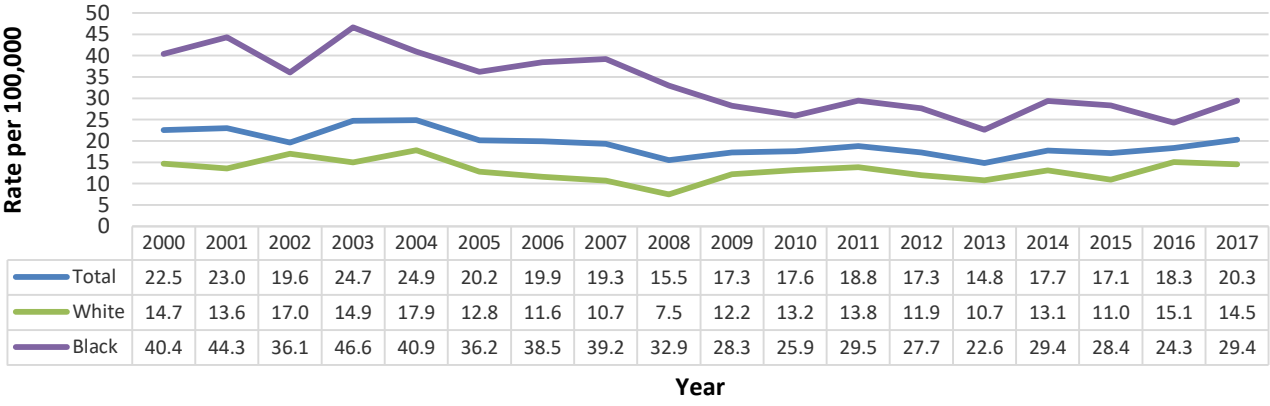
Year



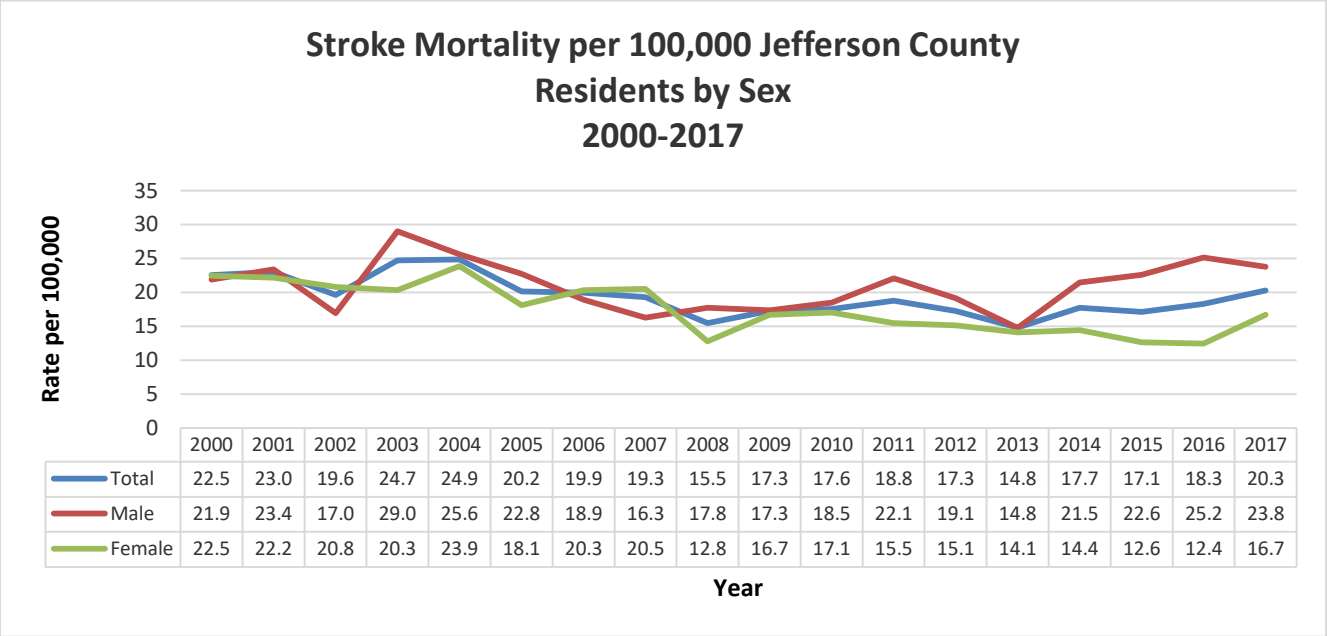
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Black Male	105.9	103.1	108.2	99.4	88.9	77.6	103.1	81.3	90.7	60.2	78.1	65.5	73.9	60.6	89.0	62.7	70.5	69.1
White Male	59.6	68.5	74.2	61.8	59.8	63.3	47.5	50.4	55.8	50.5	42.7	43.8	51.0	43.6	50.7	49.4	58.0	56.7
Black Female	92.7	86.6	92.1	86.3	95.6	88.2	76.6	70.3	73.4	66.6	53.2	68.0	53.9	45.1	58.2	60.1	59.8	57.0
White Female	73.9	74.9	77.9	68.7	65.3	58.4	52.3	47.6	55.6	50.6	47.8	45.9	49.7	35.4	49.1	51.7	51.3	54.0

Stroke Mortality

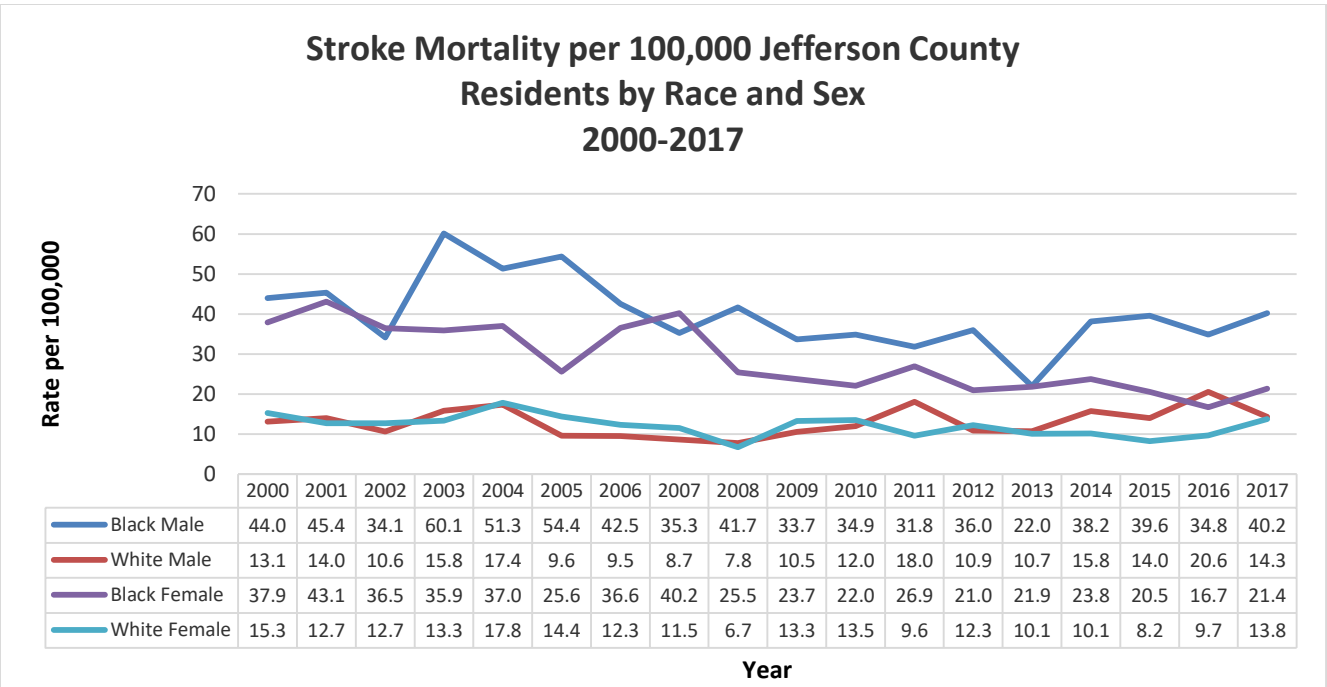
Stroke is the leading cause of cerebrovascular disease mortality in the United States. Overall stroke mortality has increased in Jefferson County since 2013. The stroke mortality rate was higher in the black sub-population and, since 2014, among males.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	22.5	23.0	19.6	24.7	24.9	20.2	19.9	19.3	15.5	17.3	17.6	18.8	17.3	14.8	17.7	17.1	18.3	20.3
White	14.7	13.6	17.0	14.9	17.9	12.8	11.6	10.7	7.5	12.2	13.2	13.8	11.9	10.7	13.1	11.0	15.1	14.5
Black	40.4	44.3	36.1	46.6	40.9	36.2	38.5	39.2	32.9	28.3	25.9	29.5	27.7	22.6	29.4	28.4	24.3	29.4



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	22.5	23.0	19.6	24.7	24.9	20.2	19.9	19.3	15.5	17.3	17.6	18.8	17.3	14.8	17.7	17.1	18.3	20.3
Male	21.9	23.4	17.0	29.0	25.6	22.8	18.9	16.3	17.8	17.3	18.5	22.1	19.1	14.8	21.5	22.6	25.2	23.8
Female	22.5	22.2	20.8	20.3	23.9	18.1	20.3	20.5	12.8	16.7	17.1	15.5	15.1	14.1	14.4	12.6	12.4	16.7

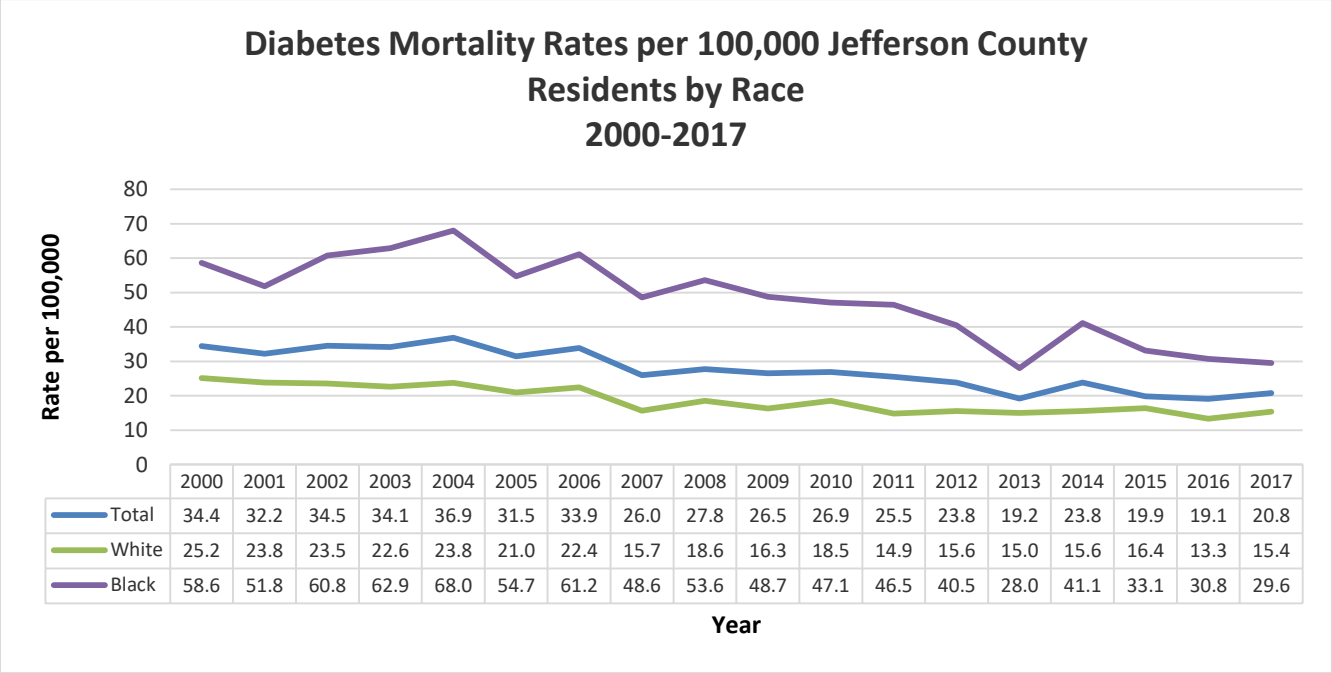


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Black Male	44.0	45.4	34.1	60.1	51.3	54.4	42.5	35.3	41.7	33.7	34.9	31.8	36.0	22.0	38.2	39.6	34.8	40.2
White Male	13.1	14.0	10.6	15.8	17.4	9.6	9.5	8.7	7.8	10.5	12.0	18.0	10.9	10.7	15.8	14.0	20.6	14.3
Black Female	37.9	43.1	36.5	35.9	37.0	25.6	36.6	40.2	25.5	23.7	22.0	26.9	21.0	21.9	23.8	20.5	16.7	21.4
White Female	15.3	12.7	12.7	13.3	17.8	14.4	12.3	11.5	6.7	13.3	13.5	9.6	12.3	10.1	10.1	8.2	9.7	13.8

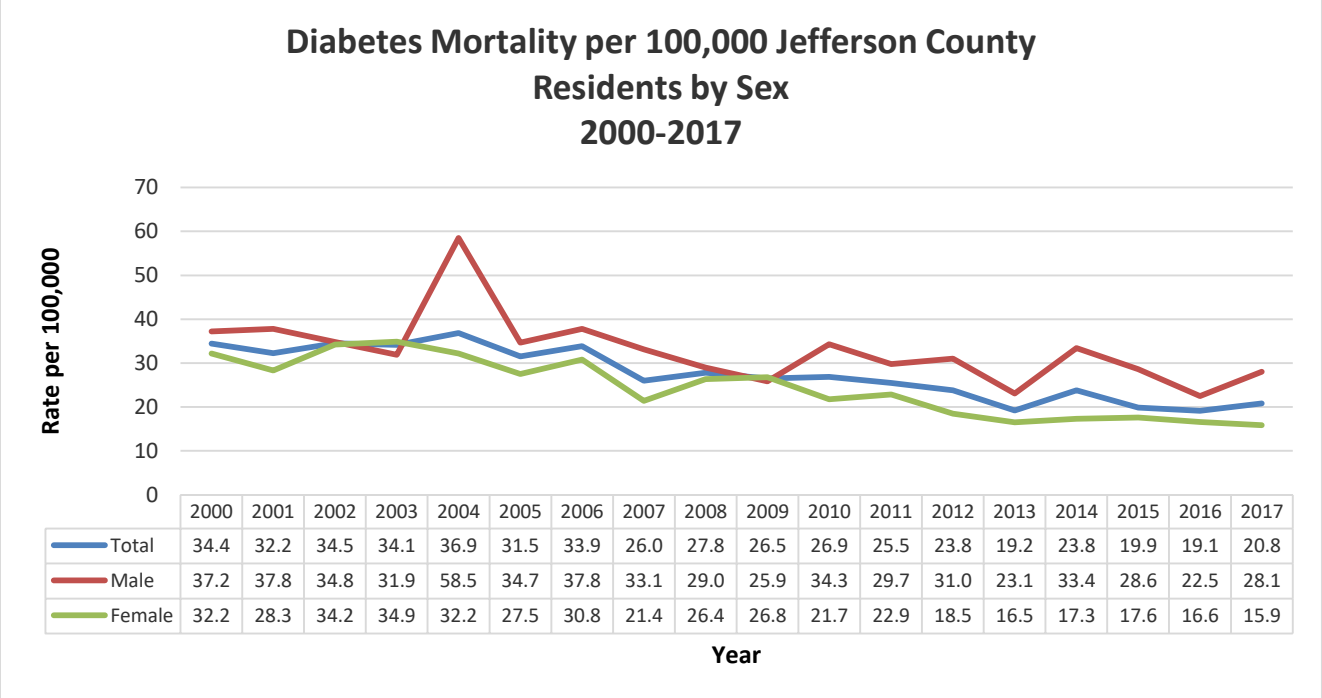
Diabetes Mortality

Diabetes is a group of diseases that affect how the body uses and metabolizes blood glucose. Diabetes mortality rate demonstrated a declining trend beginning in 2004, to the overall 2017 Diabetes mortality rate at 20.8 deaths per 100,000 population. Death rates from diabetes in 2017 demonstrated a 12.6%

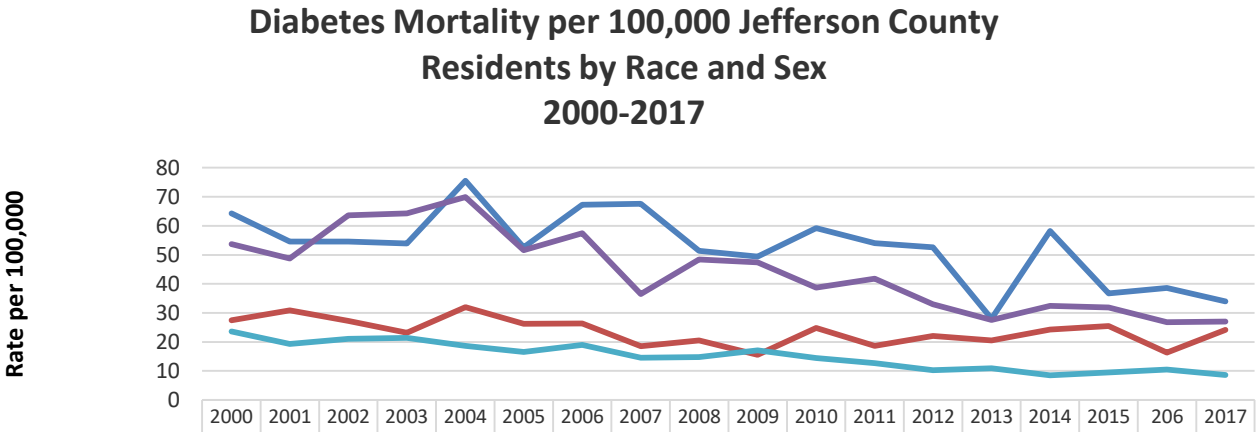
relative percent decrease from the 2012 death rate. Additionally, the race-based disparity between the black and white sub-populations between 2012 and 2017 narrowed by more than 10 deaths per 100,000 population. However, the disparity in diabetes death rates between black and white sub-populations in 2017 was statistically significant. Since 2010, a greater percentage of males have died from diabetes than females.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	34.4	32.2	34.5	34.1	36.9	31.5	33.9	26.0	27.8	26.5	26.9	25.5	23.8	19.2	23.8	19.9	19.1	20.8
White	25.2	23.8	23.5	22.6	23.8	21.0	22.4	15.7	18.6	16.3	18.5	14.9	15.6	15.0	15.6	16.4	13.3	15.4
Black	58.6	51.8	60.8	62.9	68.0	54.7	61.2	48.6	53.6	48.7	47.1	46.5	40.5	28.0	41.1	33.1	30.8	29.6



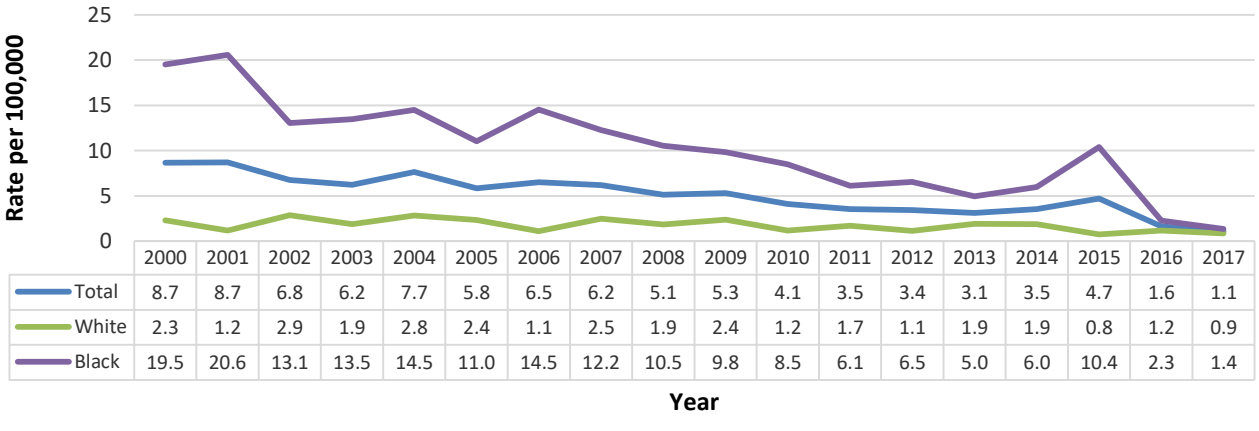
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	34.4	32.2	34.5	34.1	36.9	31.5	33.9	26.0	27.8	26.5	26.9	25.5	23.8	19.2	23.8	19.9	19.1	20.8
Male	37.2	37.8	34.8	31.9	58.5	34.7	37.8	33.1	29.0	25.9	34.3	29.7	31.0	23.1	33.4	28.6	22.5	28.1
Female	32.2	28.3	34.2	34.9	32.2	27.5	30.8	21.4	26.4	26.8	21.7	22.9	18.5	16.5	17.3	17.6	16.6	15.9



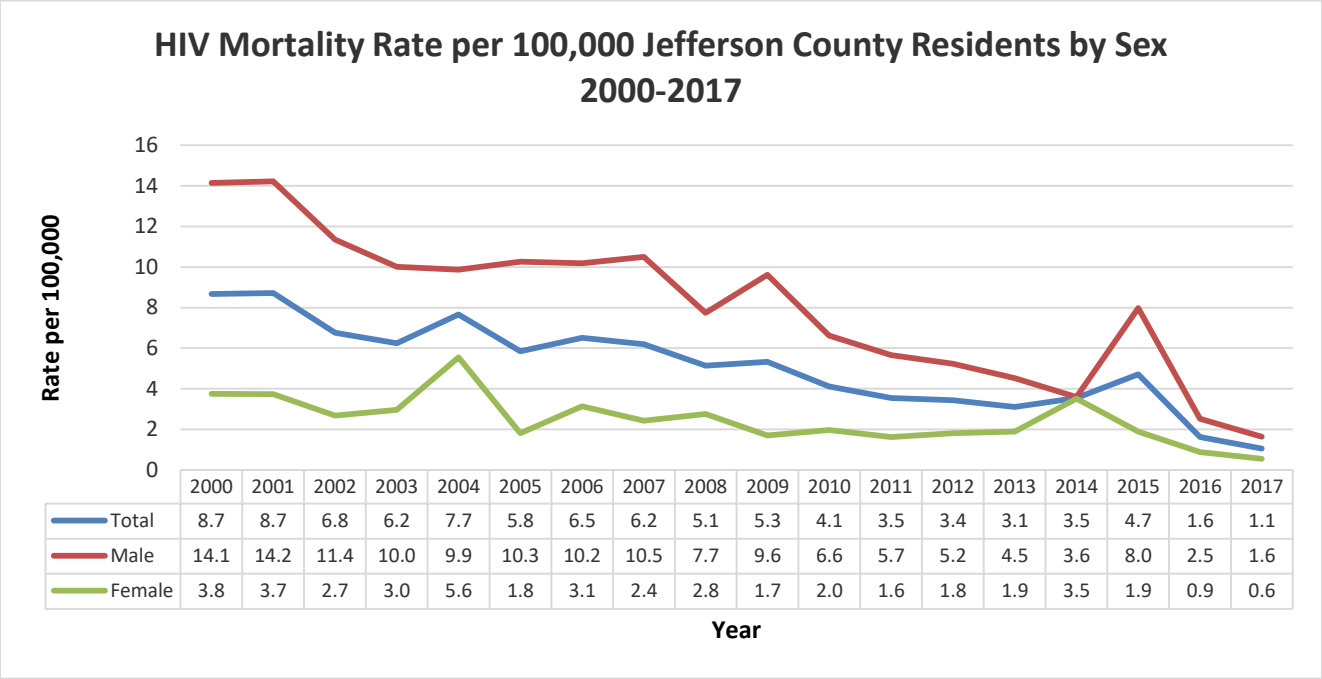
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	206	2017
Black Male	64.3	54.6	54.5	53.9	75.6	52.6	67.2	67.6	51.3	49.4	59.2	54.0	52.6	28.0	58.3	36.7	38.6	34.0
White Male	27.5	30.9	27.3	23.2	32.0	26.2	26.4	18.5	20.5	15.6	24.8	18.6	22.1	20.5	24.3	25.5	16.3	24.2
Black Female	53.7	48.8	63.6	64.3	69.9	51.7	57.4	36.5	48.4	47.4	38.7	41.8	33.0	27.5	32.4	31.8	26.8	27.0
White Female	23.6	19.3	21.0	21.4	18.7	16.6	19.0	14.6	14.8	17.1	14.5	12.7	10.3	10.9	8.5	9.5	10.5	8.7

HIV Mortality

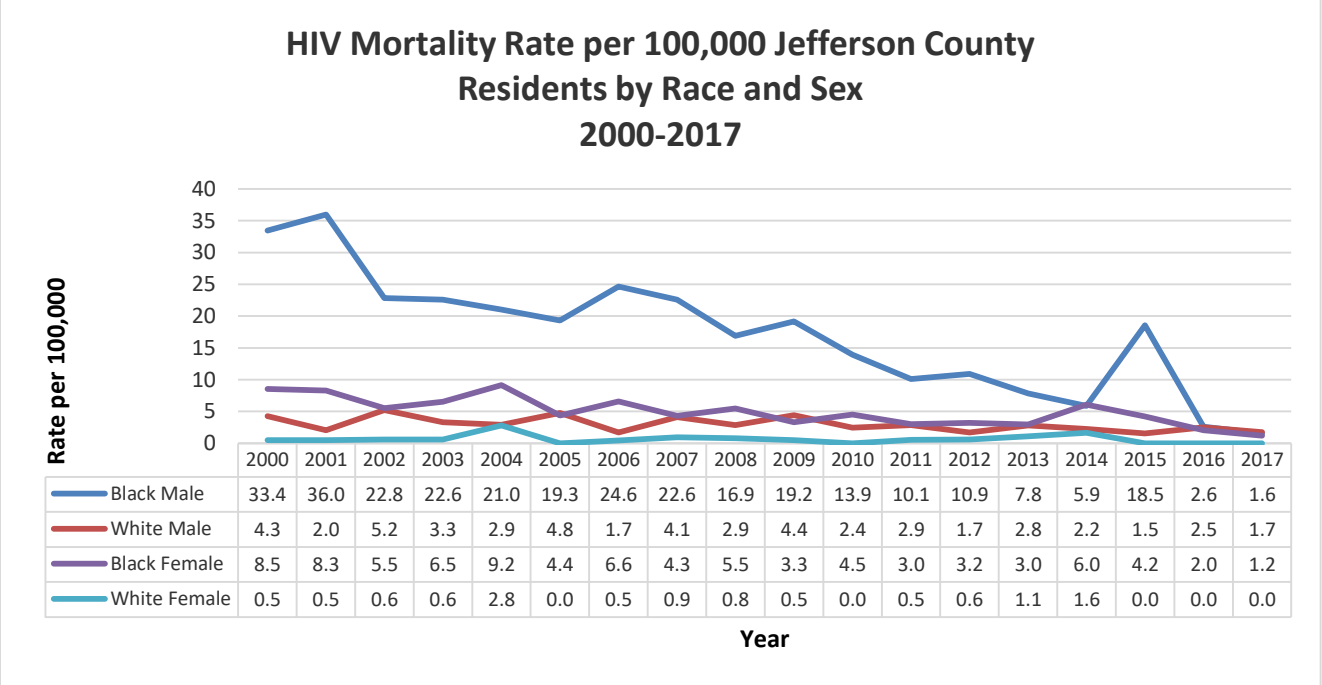
The Human Immunodeficiency Virus (HIV) is a sexually transmitted infection impacting the health of an individual. Overall in Jefferson County, HIV mortality has statistically significantly decreased by 67.6% (relative percent change) from the 2012 rate of 3.4 deaths per 100,000 population to the 2017 rate of 1.1 deaths per 100,000 population. Much of this decrease has occurred within the black sub-population, especially among black males.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	8.7	8.7	6.8	6.2	7.7	5.8	6.5	6.2	5.1	5.3	4.1	3.5	3.4	3.1	3.5	4.7	1.6	1.1
White	2.3	1.2	2.9	1.9	2.8	2.4	1.1	2.5	1.9	2.4	1.2	1.7	1.1	1.9	1.9	0.8	1.2	0.9
Black	19.5	20.6	13.1	13.5	14.5	11.0	14.5	12.2	10.5	9.8	8.5	6.1	6.5	5.0	6.0	10.4	2.3	1.4



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	8.7	8.7	6.8	6.2	7.7	5.8	6.5	6.2	5.1	5.3	4.1	3.5	3.4	3.1	3.5	4.7	1.6	1.1
Male	14.1	14.2	11.4	10.0	9.9	10.3	10.2	10.5	7.7	9.6	6.6	5.7	5.2	4.5	3.6	8.0	2.5	1.6
Female	3.8	3.7	2.7	3.0	5.6	1.8	3.1	2.4	2.8	1.7	2.0	1.6	1.8	1.9	3.5	1.9	0.9	0.6

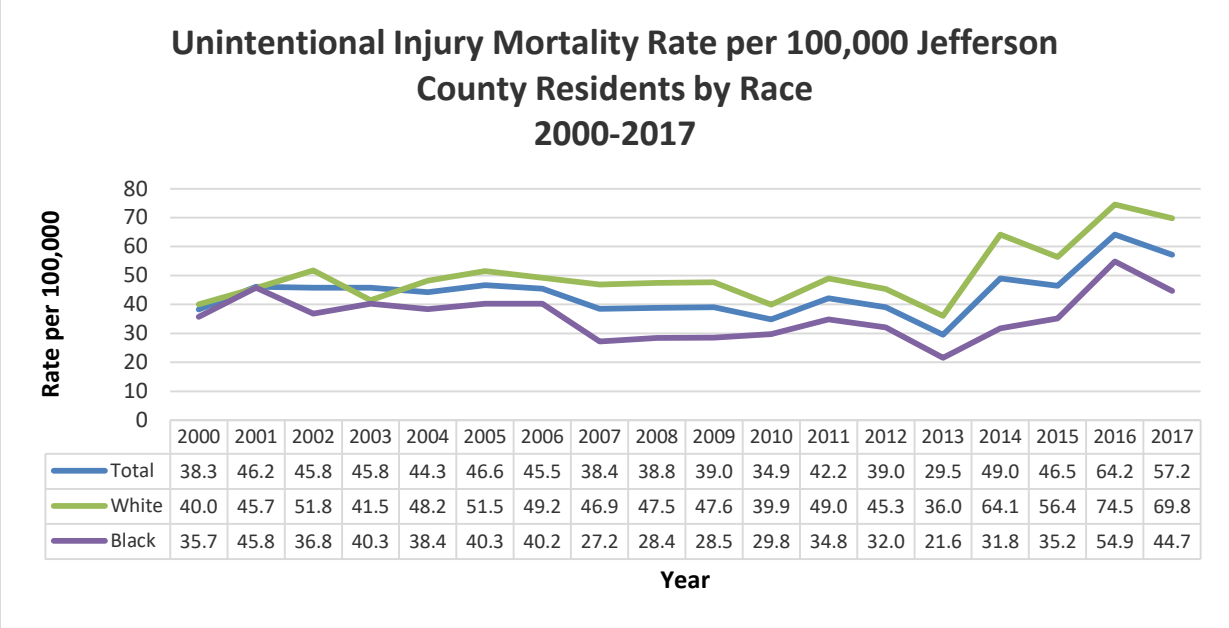


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Black Male	33.4	36.0	22.8	22.6	21.0	19.3	24.6	22.6	16.9	19.2	13.9	10.1	10.9	7.8	5.9	18.5	2.6	1.6
White Male	4.3	2.0	5.2	3.3	2.9	4.8	1.7	4.1	2.9	4.4	2.4	2.9	1.7	2.8	2.2	1.5	2.5	1.7
Black Female	8.5	8.3	5.5	6.5	9.2	4.4	6.6	4.3	5.5	3.3	4.5	3.0	3.2	3.0	6.0	4.2	2.0	1.2
White Female	0.5	0.5	0.6	0.6	2.8	0.0	0.5	0.9	0.8	0.5	0.0	0.5	0.6	1.1	1.6	0.0	0.0	0.0

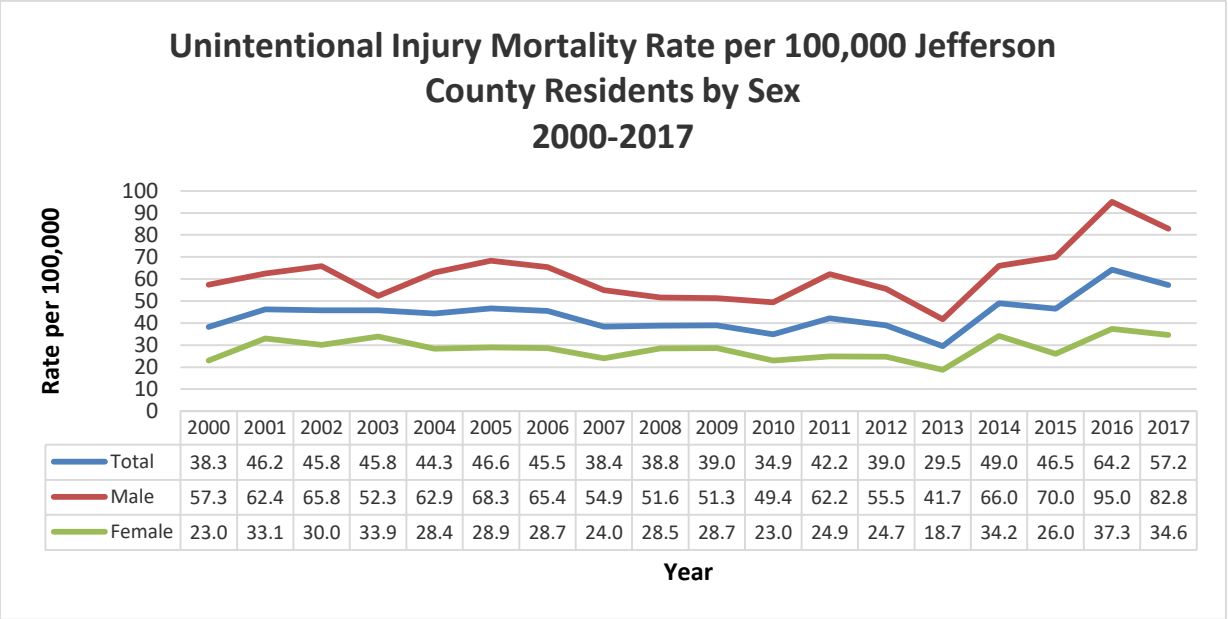
Unintentional Injury Mortality

Unintentional injury mortality is any death due to an accident that is not coded as a homicide or suicide. The 2017 mortality rate of 57.2 per 100,000 population represents a 46.7% higher relative percent change from the 2012 rate of 39.0 per 100,000 population. Rates of unintentional injury mortality

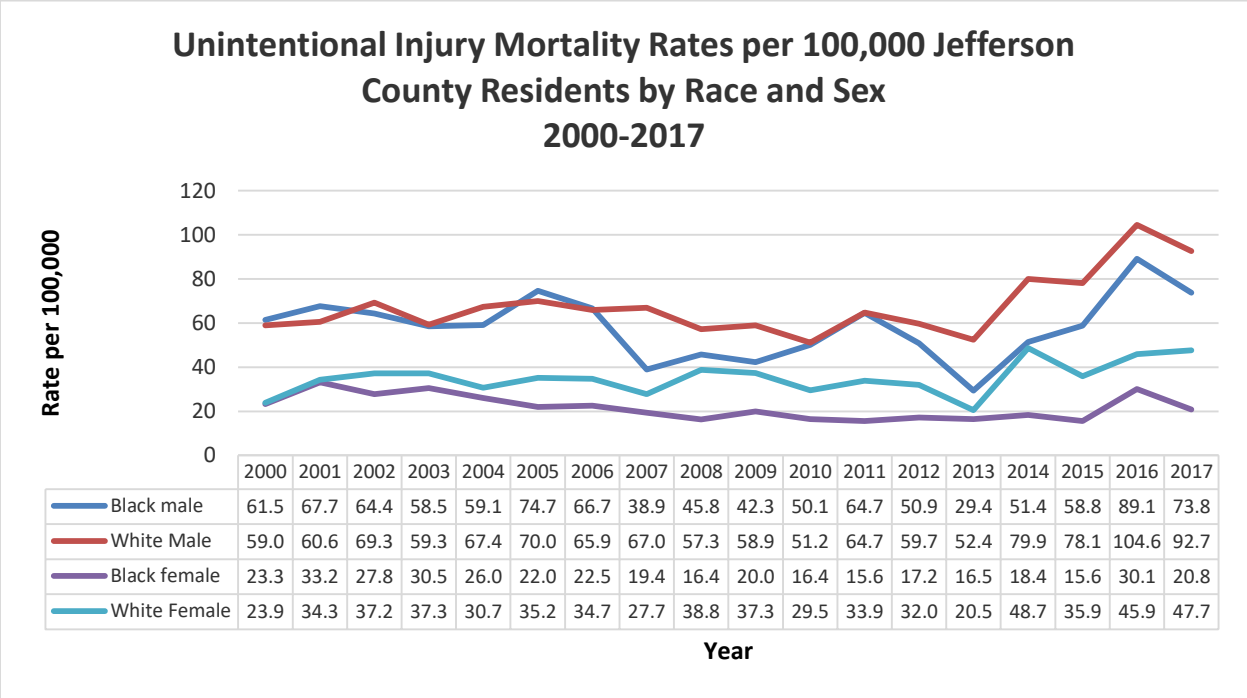
remained consistently higher among males than females from 2000-2017. Both the black and white sub-populations demonstrated higher death rates from unintentional injuries in 2017 as compared to 2012, and the change in mortality rate between the two years reached statistical significance for the population overall and for the white sub-population. Additionally, the disparity in death rates between the white and black sub-populations increased between 2012 and 2017. A major contributing factor to the increased overall death rate from unintentional injuries has been the substantial increase in drug-related deaths.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	38.3	46.2	45.8	45.8	44.3	46.6	45.5	38.4	38.8	39.0	34.9	42.2	39.0	29.5	49.0	46.5	64.2	57.2
White	40.0	45.7	51.8	41.5	48.2	51.5	49.2	46.9	47.5	47.6	39.9	49.0	45.3	36.0	64.1	56.4	74.5	69.8
Black	35.7	45.8	36.8	40.3	38.4	40.3	40.2	27.2	28.4	28.5	29.8	34.8	32.0	21.6	31.8	35.2	54.9	44.7



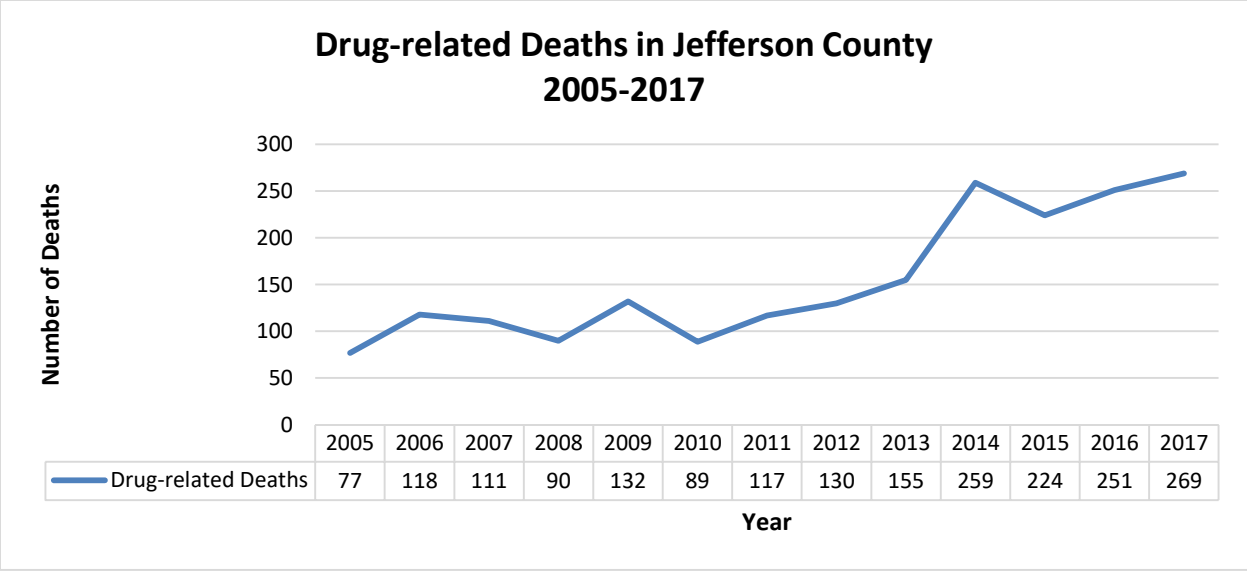
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	38.3	46.2	45.8	45.8	44.3	46.6	45.5	38.4	38.8	39.0	34.9	42.2	39.0	29.5	49.0	46.5	64.2	57.2
Male	57.3	62.4	65.8	52.3	62.9	68.3	65.4	54.9	51.6	51.3	49.4	62.2	55.5	41.7	66.0	70.0	95.0	82.8
Female	23.0	33.1	30.0	33.9	28.4	28.9	28.7	24.0	28.5	28.7	23.0	24.9	24.7	18.7	34.2	26.0	37.3	34.6



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Black male	61.5	67.7	64.4	58.5	59.1	74.7	66.7	38.9	45.8	42.3	50.1	64.7	50.9	29.4	51.4	58.8	89.1	73.8
White Male	59.0	60.6	69.3	59.3	67.4	70.0	65.9	67.0	57.3	58.9	51.2	64.7	59.7	52.4	79.9	78.1	104.6	92.7
Black female	23.3	33.2	27.8	30.5	26.0	22.0	22.5	19.4	16.4	20.0	16.4	15.6	17.2	16.5	18.4	15.6	30.1	20.8
White Female	23.9	34.3	37.2	37.3	30.7	35.2	34.7	27.7	38.8	37.3	29.5	33.9	32.0	20.5	48.7	35.9	45.9	47.7

Drug-related Deaths

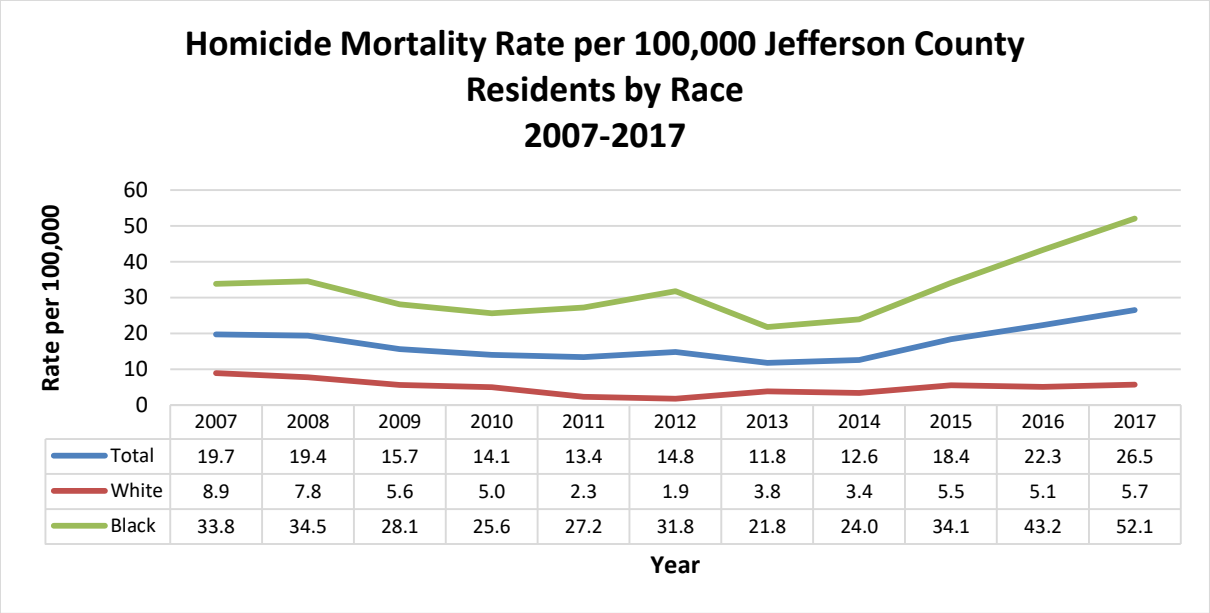
The number of drug-related deaths in Jefferson County doubled between 2012 and 2017. This increase in drug-related deaths contributed to lower life expectancy as well as an increased rate of unintentional injury mortality.



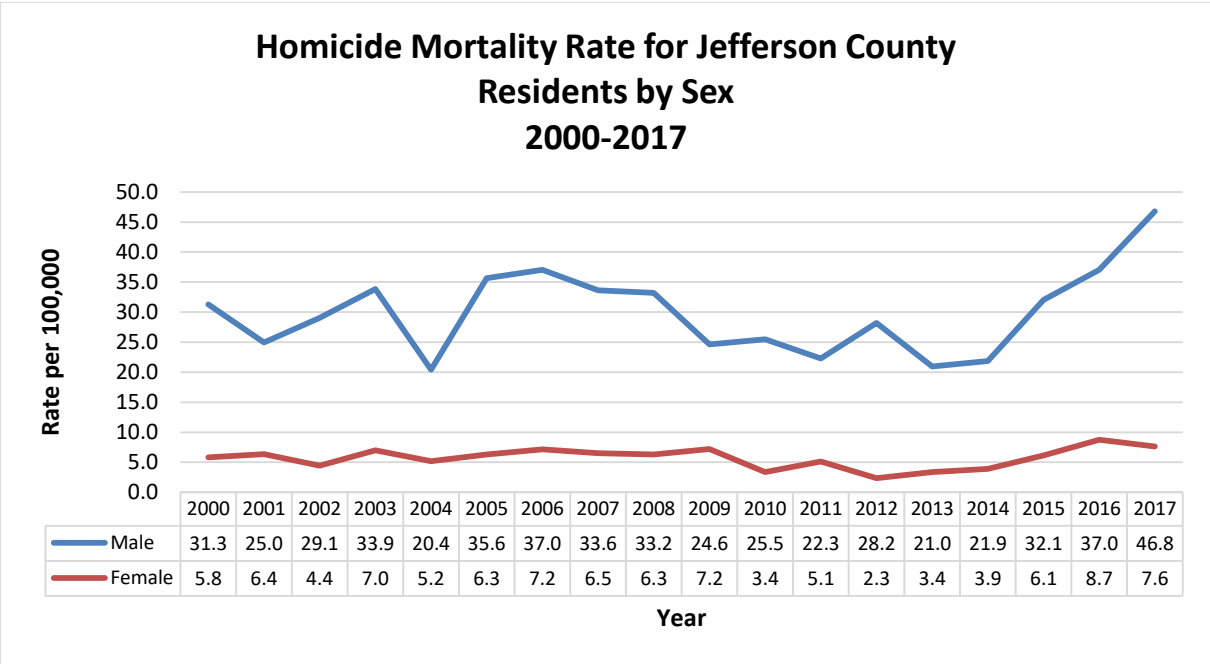
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Drug-related Deaths	77	118	111	90	132	89	117	130	155	259	224	251	269

Homicide Mortality

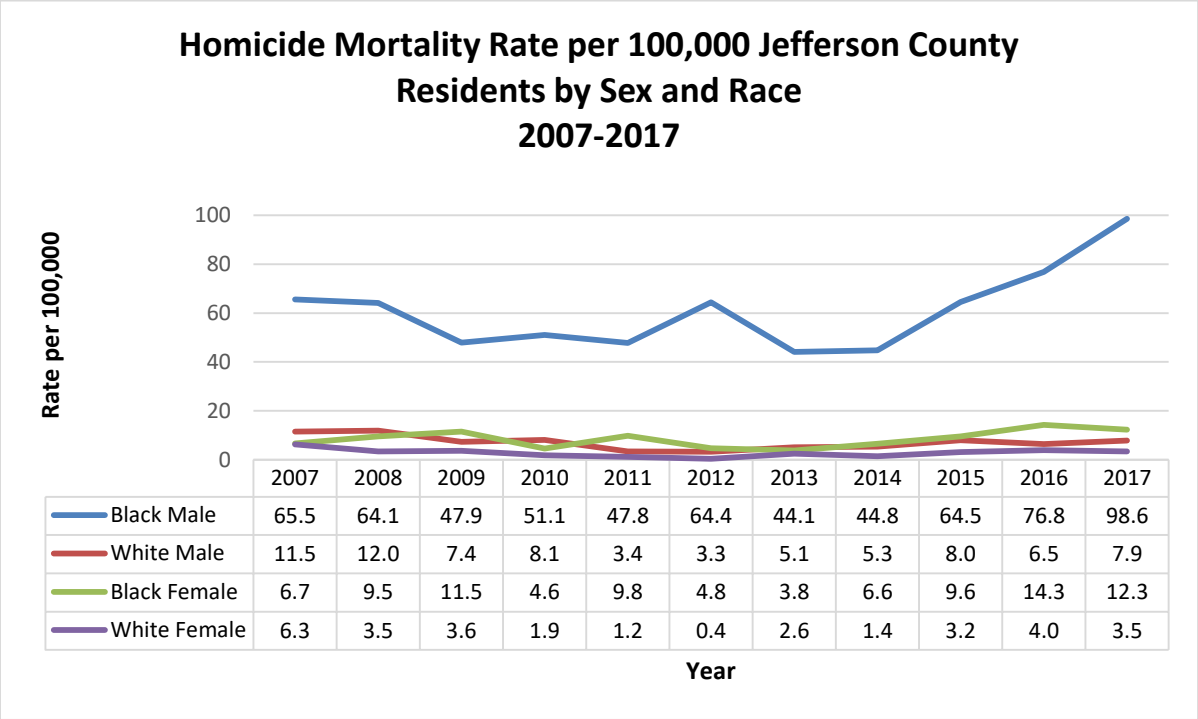
Overall homicide mortality rates in Jefferson County increased statistically significantly from 14.8 in 2012 to 26.5 in 2017. The black, white, and male sub-populations exhibited increased rates during this time frame. The rate increase in the black sub-population was reached statistical significance during this time frame.



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	19.7	19.4	15.7	14.1	13.4	14.8	11.8	12.6	18.4	22.3	26.5
White	8.9	7.8	5.6	5.0	2.3	1.9	3.8	3.4	5.5	5.1	5.7
Black	33.8	34.5	28.1	25.6	27.2	31.8	21.8	24.0	34.1	43.2	52.1



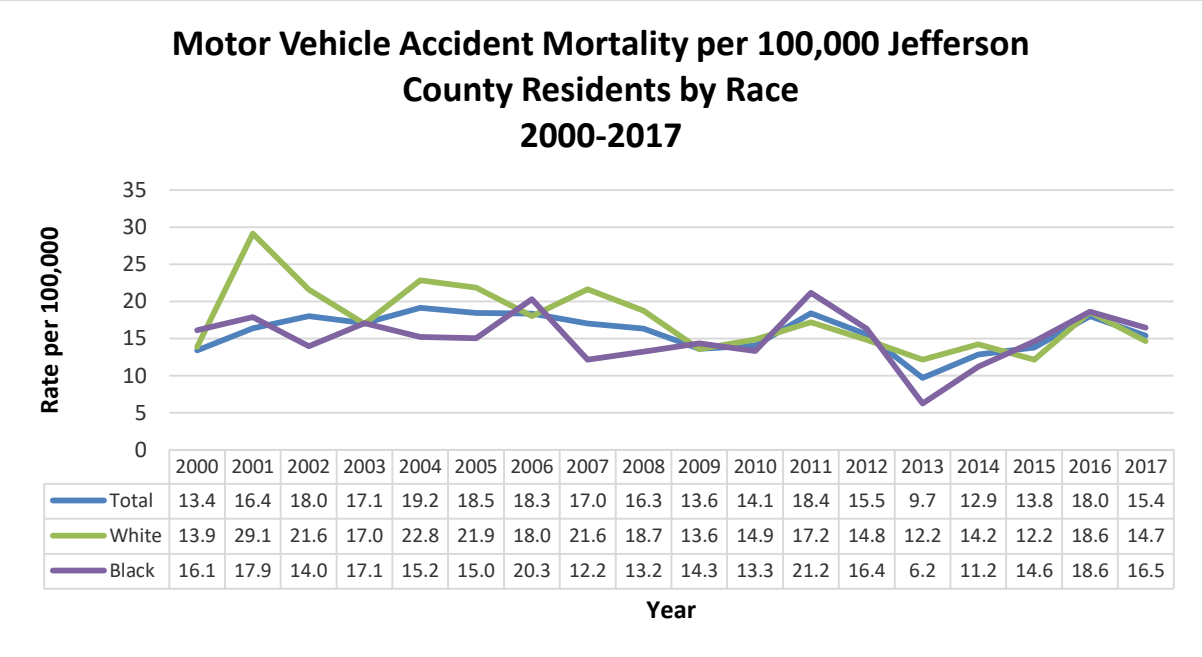
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Male	31.3	25.0	29.1	33.9	20.4	35.6	37.0	33.6	33.2	24.6	25.5	22.3	28.2	21.0	21.9	32.1	37.0	46.8
Female	5.8	6.4	4.4	7.0	5.2	6.3	7.2	6.5	6.3	7.2	3.4	5.1	2.3	3.4	3.9	6.1	8.7	7.6



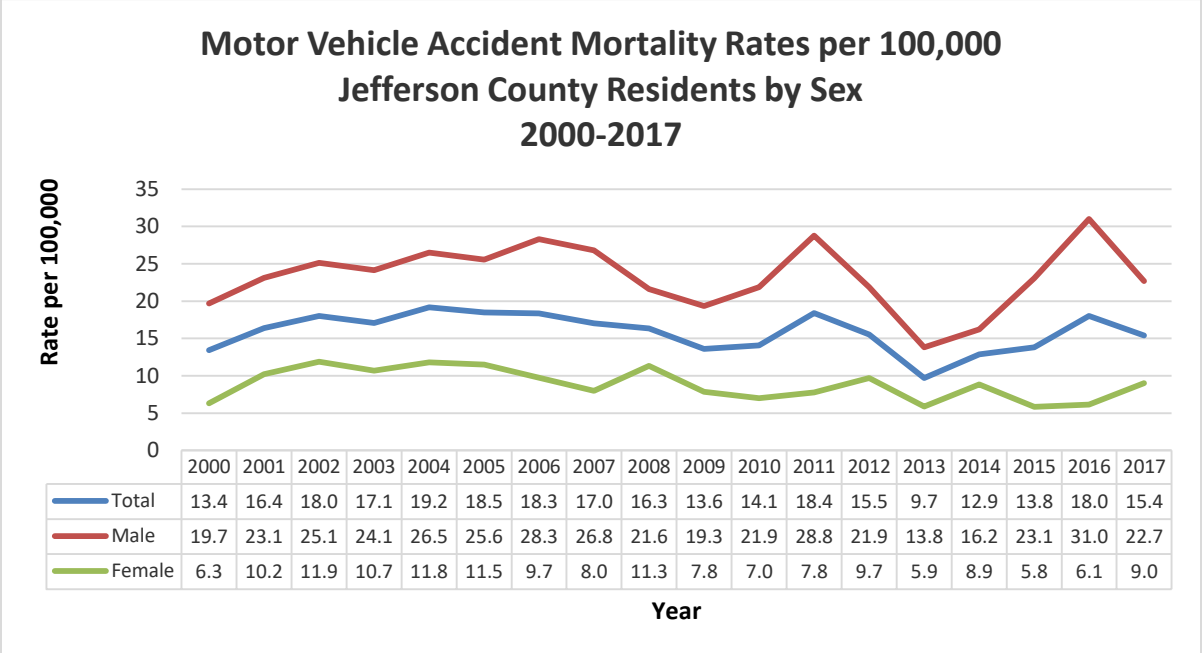
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Black Male	65.5	64.1	47.9	51.1	47.8	64.4	44.1	44.8	64.5	76.8	98.6
White Male	11.5	12.0	7.4	8.1	3.4	3.3	5.1	5.3	8.0	6.5	7.9
Black Female	6.7	9.5	11.5	4.6	9.8	4.8	3.8	6.6	9.6	14.3	12.3
White Female	6.3	3.5	3.6	1.9	1.2	0.4	2.6	1.4	3.2	4.0	3.5

Motor Vehicle Accident Mortality

Mortality from motor vehicle accidents in Jefferson County decreased by 0.6% from the 2012 rate of 15.5 per 100,000 population to the 2017 rate of 15.4 per 100,000 population. There was a spike in 2015 with a rate of 18.0 deaths from motor vehicle accidents per 100,000 population. During most years since 2000, the teen death rate from motor vehicle accidents exceeded the rate for the overall population.

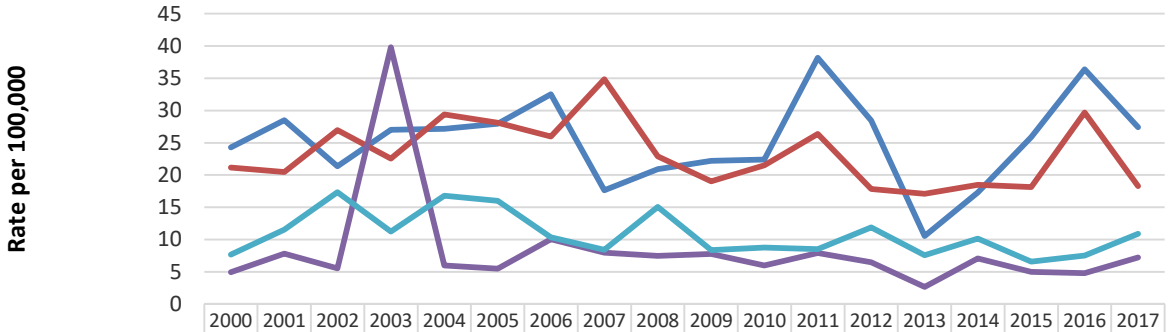


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	13.4	16.4	18.0	17.1	19.2	18.5	18.3	17.0	16.3	13.6	14.1	18.4	15.5	9.7	12.9	13.8	18.0	15.4
White	13.9	29.1	21.6	17.0	22.8	21.9	18.0	21.6	18.7	13.6	14.9	17.2	14.8	12.2	14.2	12.2	18.6	14.7
Black	16.1	17.9	14.0	17.1	15.2	15.0	20.3	12.2	13.2	14.3	13.3	21.2	16.4	6.2	11.2	14.6	18.6	16.5



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	13.4	16.4	18.0	17.1	19.2	18.5	18.3	17.0	16.3	13.6	14.1	18.4	15.5	9.7	12.9	13.8	18.0	15.4
Male	19.7	23.1	25.1	24.1	26.5	25.6	28.3	26.8	21.6	19.3	21.9	28.8	21.9	13.8	16.2	23.1	31.0	22.7
Female	6.3	10.2	11.9	10.7	11.8	11.5	9.7	8.0	11.3	7.8	7.0	7.8	9.7	5.9	8.9	5.8	6.1	9.0

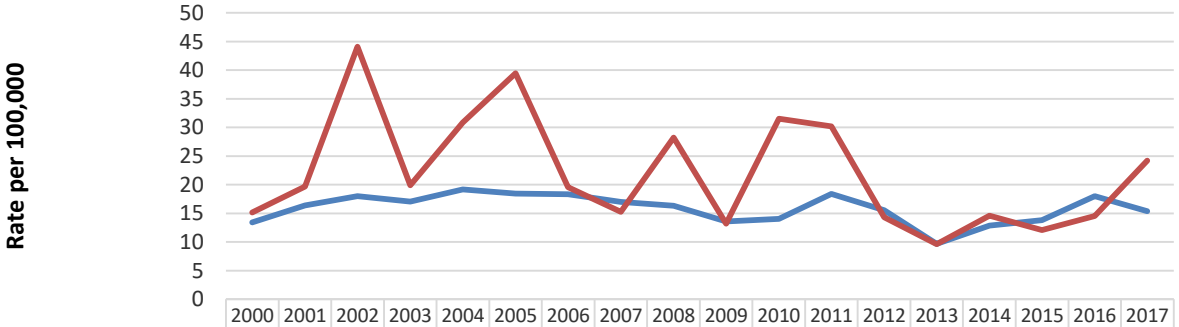
Motor Vehicle Accident Mortality Rate per 100,000 Jefferson County Residents by Race and Sex 2000-2017



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Black Male	24.3	28.5	21.3	27.0	27.2	27.9	32.5	17.6	20.9	22.2	22.4	38.2	28.4	10.6	17.3	25.9	36.4	27.4
White Male	21.2	20.5	27.0	22.5	29.4	28.1	26.0	34.9	22.9	19.0	21.5	26.4	17.8	17.1	18.5	18.1	29.7	18.3
Black Female	4.9	7.8	5.5	39.8	6.0	5.5	10.1	8.0	7.4	7.8	6.0	7.9	6.5	2.7	7.0	5.0	4.8	7.2
White Female	7.7	11.5	17.3	11.2	16.8	16.0	10.3	8.4	15.1	8.3	8.7	8.5	11.9	7.6	10.1	6.6	7.5	10.9

Year

Motor Vehicle Accident Mortality Rate per 100,000 Among Teens Ages 15 to 19 2000-2017

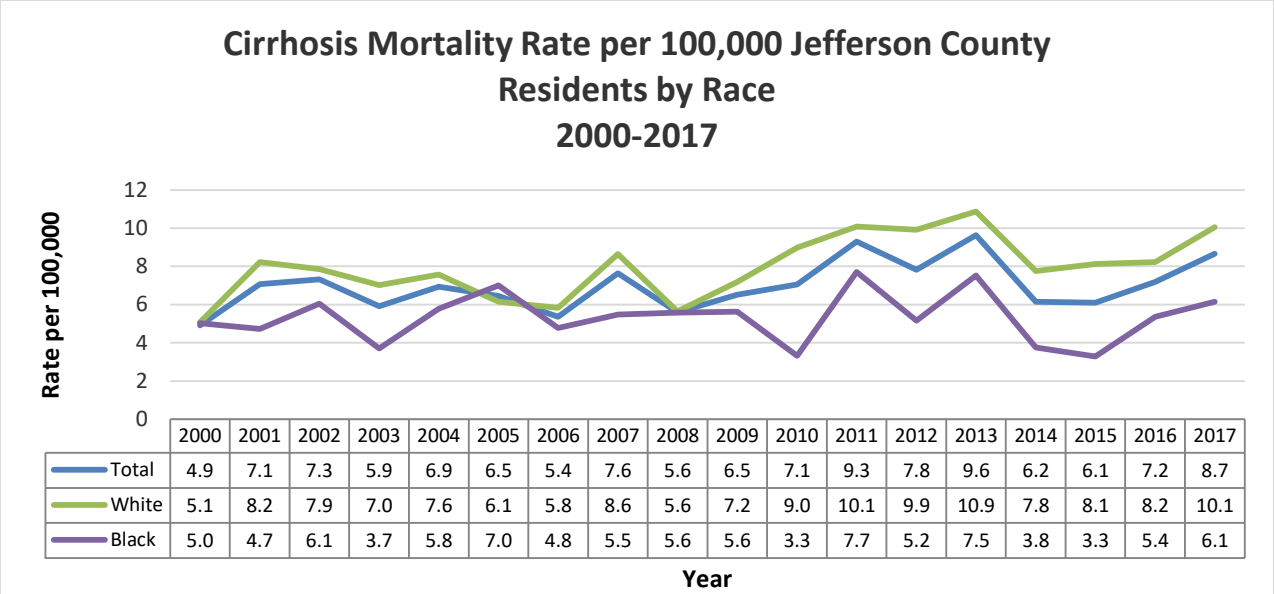


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	13.4	16.4	18.0	17.1	19.2	18.5	18.3	17.0	16.3	13.6	14.1	18.4	15.5	9.7	12.9	13.8	18.0	15.4
Teen Ages 15-19	15.2	19.7	44.1	19.9	30.9	39.4	19.6	15.3	28.3	13.2	31.5	30.2	14.3	9.6	14.6	12.1	14.5	24.2

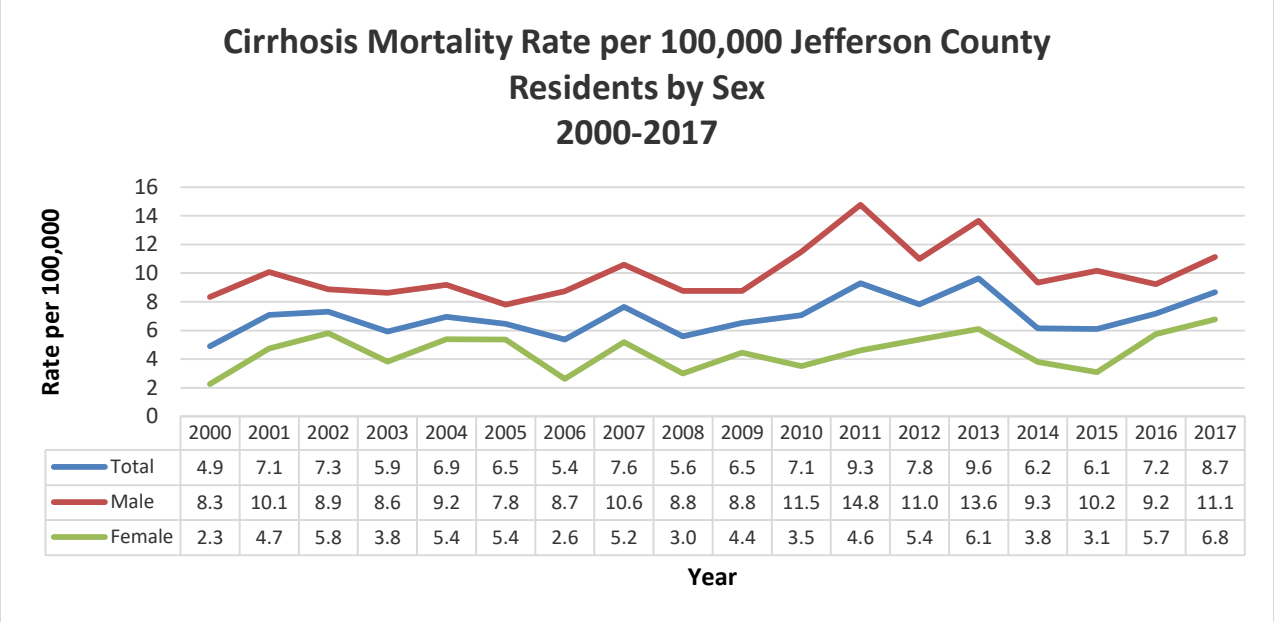
Year

Cirrhosis Mortality

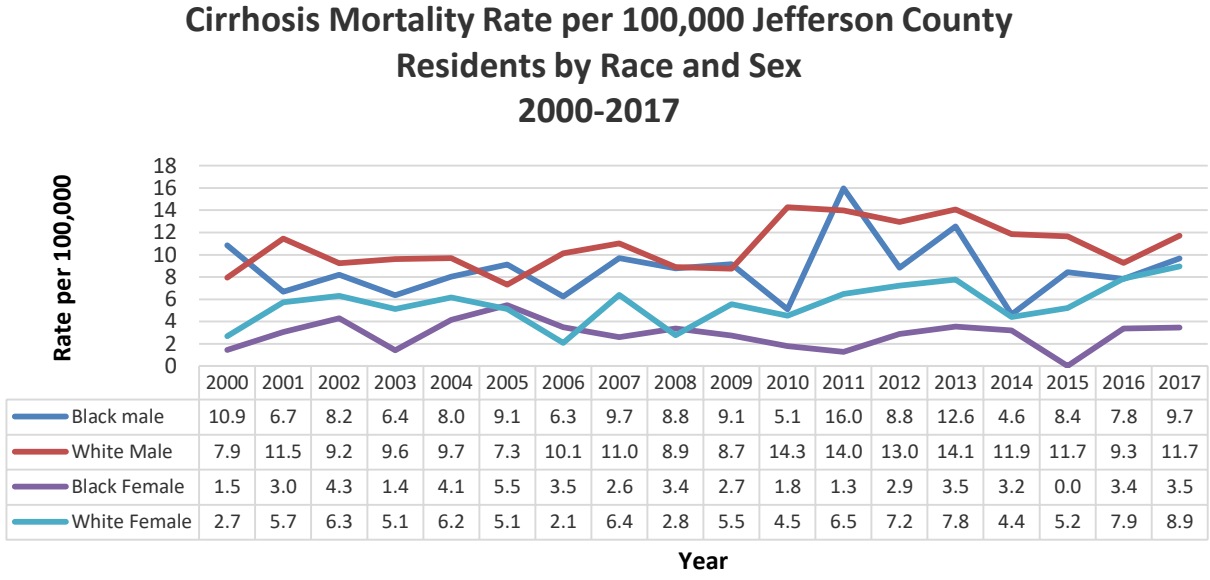
Cirrhosis of the liver is linked to alcoholism and other liver-related diseases, including Hepatitis. Cirrhosis mortality within Jefferson County increased 11.5% from the 2012 rate of 7.8 per 100,000 population to the 2017 rate of 8.7 per 100,000 population. Mortality for this disease is typically higher among the white sub-population and among males.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	4.9	7.1	7.3	5.9	6.9	6.5	5.4	7.6	5.6	6.5	7.1	9.3	7.8	9.6	6.2	6.1	7.2	8.7
White	5.1	8.2	7.9	7.0	7.6	6.1	5.8	8.6	5.6	7.2	9.0	10.1	9.9	10.9	7.8	8.1	8.2	10.1
Black	5.0	4.7	6.1	3.7	5.8	7.0	4.8	5.5	5.6	5.6	3.3	7.7	5.2	7.5	3.8	3.3	5.4	6.1



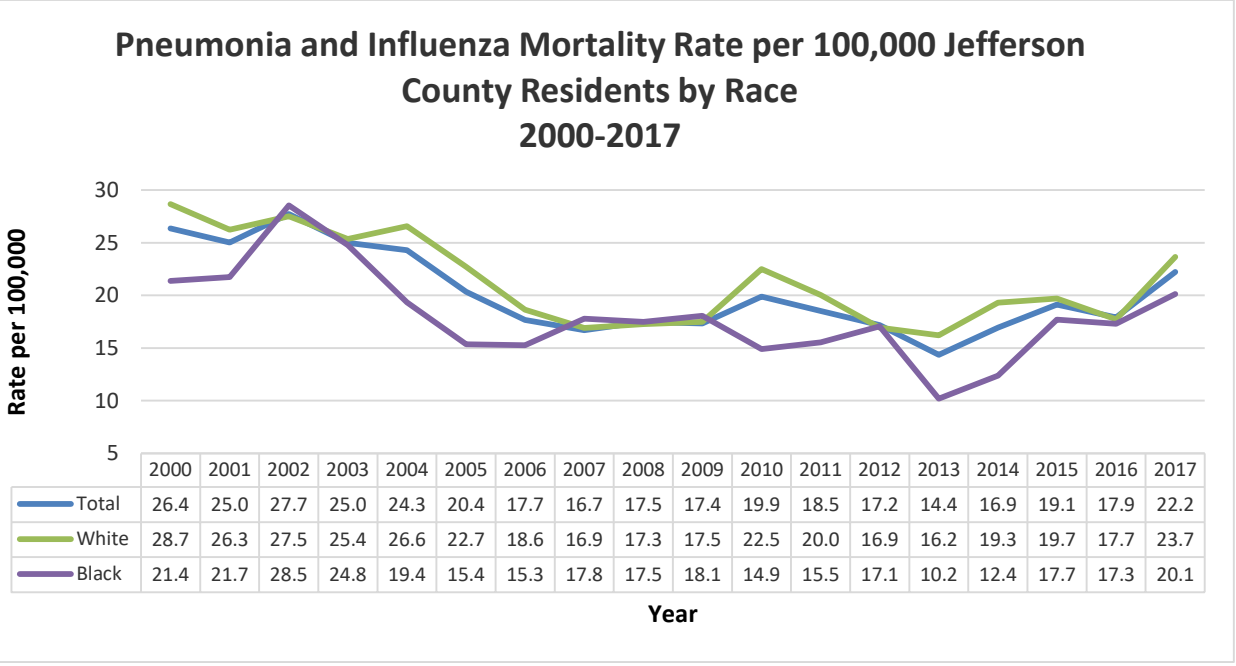
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	4.9	7.1	7.3	5.9	6.9	6.5	5.4	7.6	5.6	6.5	7.1	9.3	7.8	9.6	6.2	6.1	7.2	8.7
Male	8.3	10.1	8.9	8.6	9.2	7.8	8.7	10.6	8.8	8.8	11.5	14.8	11.0	13.6	9.3	10.2	9.2	11.1
Female	2.3	4.7	5.8	3.8	5.4	5.4	2.6	5.2	3.0	4.4	3.5	4.6	5.4	6.1	3.8	3.1	5.7	6.8



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Black male	10.9	6.7	8.2	6.4	8.0	9.1	6.3	9.7	8.8	9.1	5.1	16.0	8.8	12.6	4.6	8.4	7.8	9.7
White Male	7.9	11.5	9.2	9.6	9.7	7.3	10.1	11.0	8.9	8.7	14.3	14.0	13.0	14.1	11.9	11.7	9.3	11.7
Black Female	1.5	3.0	4.3	1.4	4.1	5.5	3.5	2.6	3.4	2.7	1.8	1.3	2.9	3.5	3.2	0.0	3.4	3.5
White Female	2.7	5.7	6.3	5.1	6.2	5.1	2.1	6.4	2.8	5.5	4.5	6.5	7.2	7.8	4.4	5.2	7.9	8.9

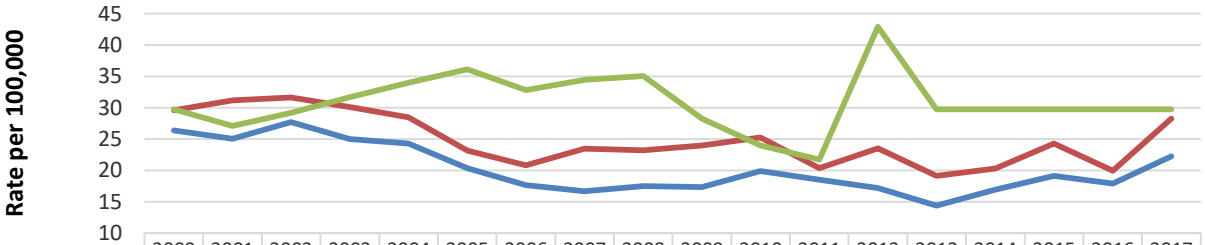
Pneumonia and Influenza Mortality

Pneumonia and influenza were the eighth, tenth and seventh leading cause of death in Jefferson County in 2003, 2012 and 2017, respectively. Rates of pneumonia and influenza mortality have exhibited an increasing trend since 2012, with the 2017 rate of 22.2 deaths per 100,000 population. Pneumonia and influenza mortality rates are generally higher among the female and white sub-populations.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	26.4	25.0	27.7	25.0	24.3	20.4	17.7	16.7	17.5	17.4	19.9	18.5	17.2	14.4	16.9	19.1	17.9	22.2
White	28.7	26.3	27.5	25.4	26.6	22.7	18.6	16.9	17.3	17.5	22.5	20.0	16.9	16.2	19.3	19.7	17.7	23.7
Black	21.4	21.7	28.5	24.8	19.4	15.4	15.3	17.8	17.5	18.1	14.9	15.5	17.1	10.2	12.4	17.7	17.3	20.1

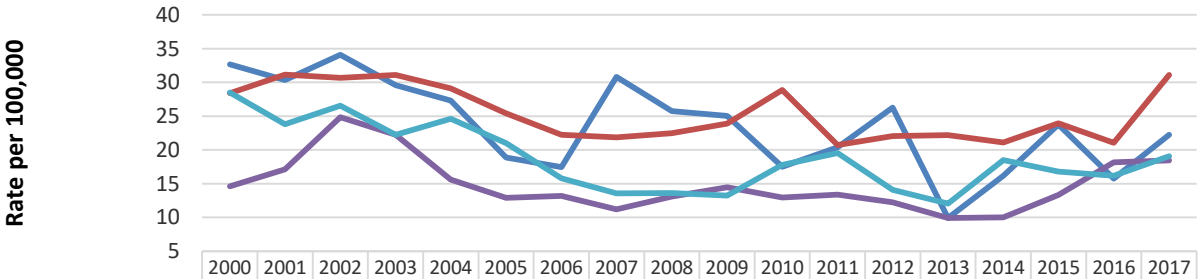
Pneumonia and Influenza Mortality Rate per 100,000 Jefferson County Residents by Sex 2000-2017



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	26.4	25.0	27.7	25.0	24.3	20.4	17.7	16.7	17.5	17.4	19.9	18.5	17.2	14.4	16.9	19.1	17.9	22.2
Male	29.6	31.2	31.6	30.1	28.4	23.2	20.8	23.5	23.2	24.0	25.3	20.4	23.5	19.1	20.3	24.3	19.9	28.3
Female	29.8	27.1	29.2	31.7	34.0	36.1	32.8	34.4	35.0	28.3	24.0	21.7	42.9	29.8	29.8	29.8	29.8	29.8

Year

Pneumonia and Influenza Mortality Rate per 100,000 Jefferson County Residents by Race and Sex 2000-2017



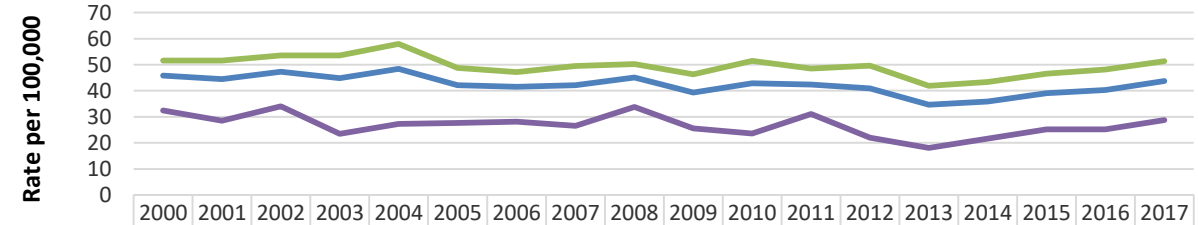
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Black Male	32.7	30.3	34.1	29.6	27.3	18.9	17.5	30.8	25.7	25.0	17.5	20.4	26.3	9.9	16.2	23.8	15.8	22.3
White Male	28.4	31.2	30.7	31.1	29.1	25.4	22.2	21.9	22.5	23.9	28.9	20.7	22.0	22.2	21.1	24.0	21.1	31.1
Black Female	14.6	17.1	24.9	22.3	15.6	12.9	13.2	11.2	13.1	14.5	13.0	13.4	12.3	9.9	10.0	13.3	18.2	18.5
White Female	28.5	23.8	26.6	22.3	24.6	21.0	15.8	13.6	13.6	13.2	17.8	19.5	14.1	12.1	18.5	16.8	16.2	19.1

Year

Chronic Obstructive Pulmonary Disease and Allied Disease Mortality

Chronic Obstructive Pulmonary Disease (COPD) is associated with smoking and includes chronic bronchitis, emphysema and chronic obstructive asthma. COPD mortality rates have gradually increased from the 2012 rate of 40.9 per 100,000 population to the 2017 rate of 43.7 per 100,000 population, representing a 6.8% (relative percent change) increase. The white and male sub-population's rates of COPD mortality remained consistently higher than those of the black and female sub-populations between 2000 and 2017. The disparity in death rates from COPD between the white and black sub-populations was reduced by five deaths per 100,000 populations between 2012 and 2017, however, the rate disparity by race was statistically significant in 2017.

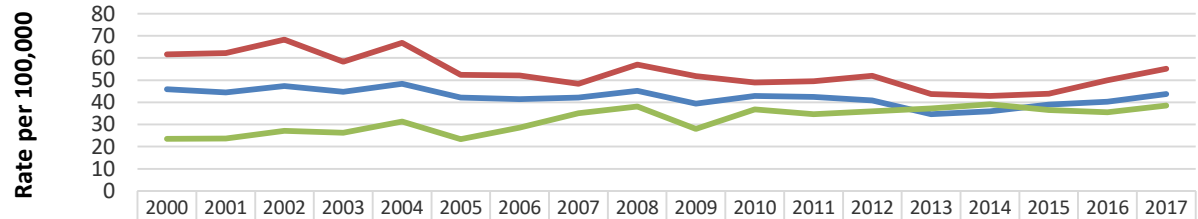
COPD and Allied Disease Mortality Rate per 100,000 Jefferson County Residents by Race 2000-2017



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	45.9	44.5	47.3	44.8	48.4	42.2	41.5	42.1	45.1	39.3	42.9	42.5	40.9	34.7	35.9	39.0	40.3	43.7
White	51.6	51.6	53.5	53.6	58.0	48.8	47.2	49.6	50.3	46.3	51.5	48.6	49.7	41.9	43.4	46.6	48.1	51.4
Black	32.4	28.5	34.1	23.5	27.3	27.7	28.2	26.6	33.8	25.6	23.6	31.1	22.0	18.1	21.7	25.1	25.2	28.7

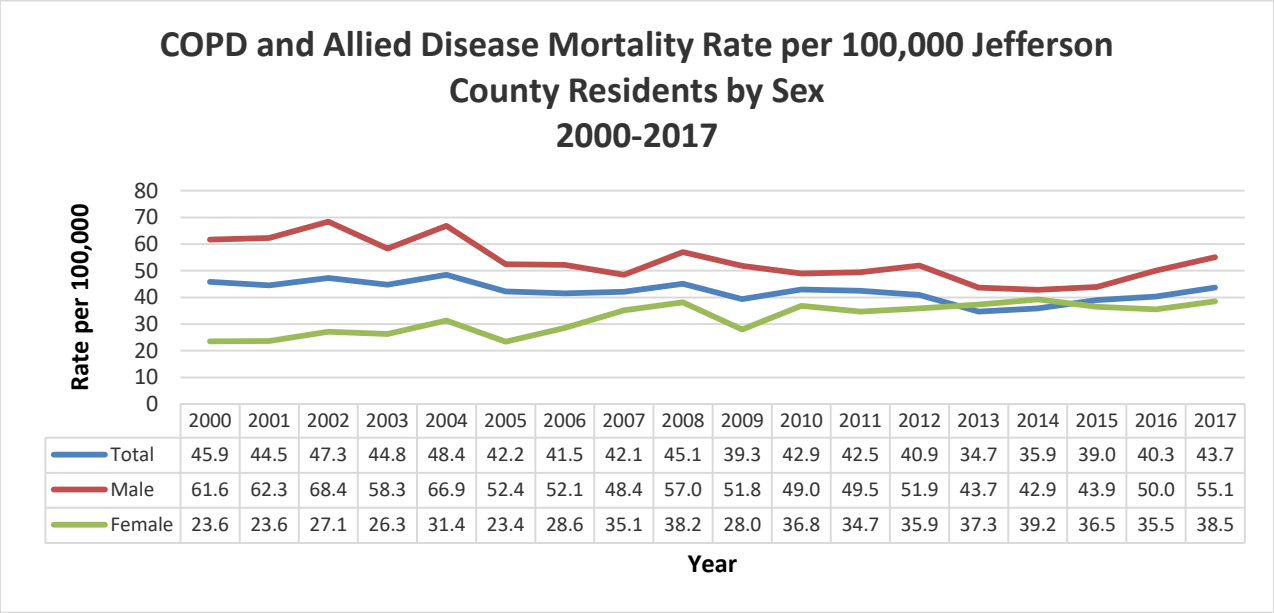
Year

COPD and Allied Disease Mortality Rate per 100,000 Jefferson County Residents by Sex 2000-2017



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	45.9	44.5	47.3	44.8	48.4	42.2	41.5	42.1	45.1	39.3	42.9	42.5	40.9	34.7	35.9	39.0	40.3	43.7
Male	61.6	62.3	68.4	58.3	66.9	52.4	52.1	48.4	57.0	51.8	49.0	49.5	51.9	43.7	42.9	43.9	50.0	55.1
Female	23.6	23.6	27.1	26.3	31.4	23.4	28.6	35.1	38.2	28.0	36.8	34.7	35.9	37.3	39.2	36.5	35.5	38.5

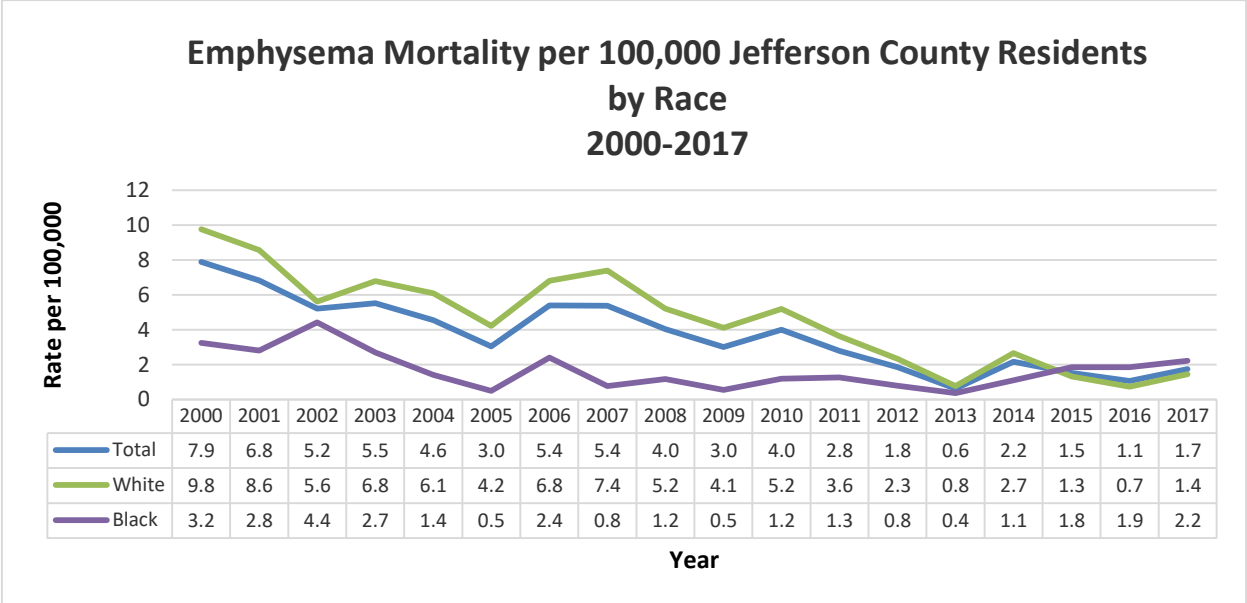
Year



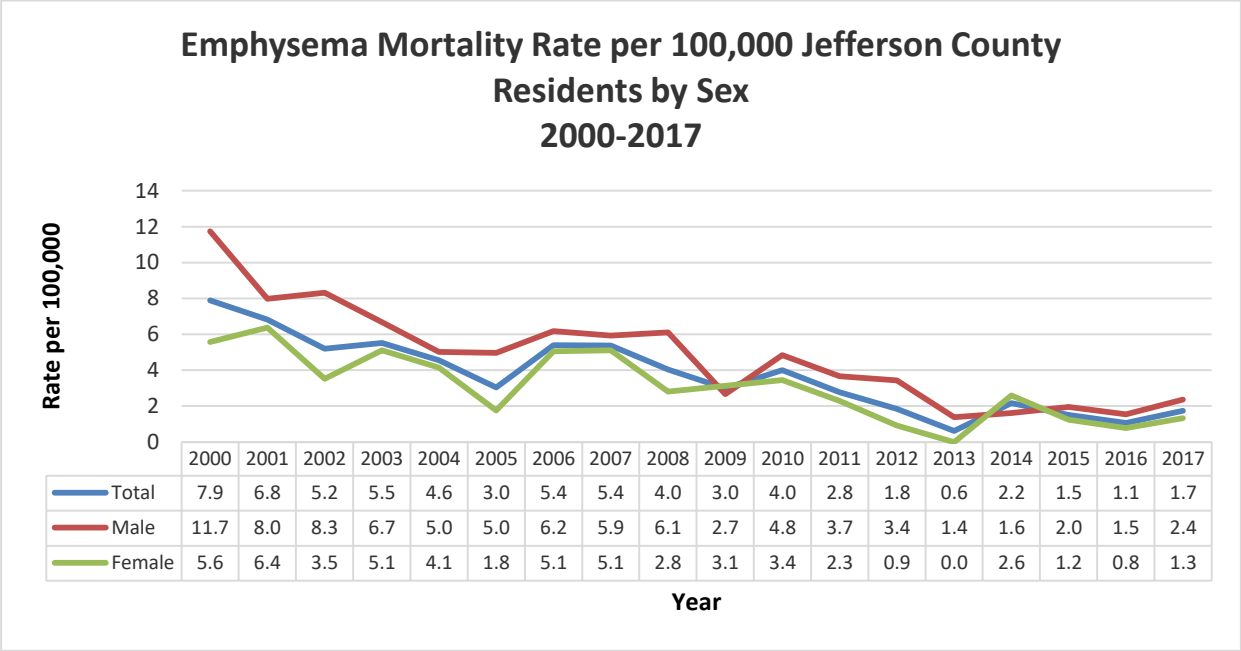
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	45.9	44.5	47.3	44.8	48.4	42.2	41.5	42.1	45.1	39.3	42.9	42.5	40.9	34.7	35.9	39.0	40.3	43.7
Male	61.6	62.3	68.4	58.3	66.9	52.4	52.1	48.4	57.0	51.8	49.0	49.5	51.9	43.7	42.9	43.9	50.0	55.1
Female	23.6	23.6	27.1	26.3	31.4	23.4	28.6	35.1	38.2	28.0	36.8	34.7	35.9	37.3	39.2	36.5	35.5	38.5

Emphysema Mortality

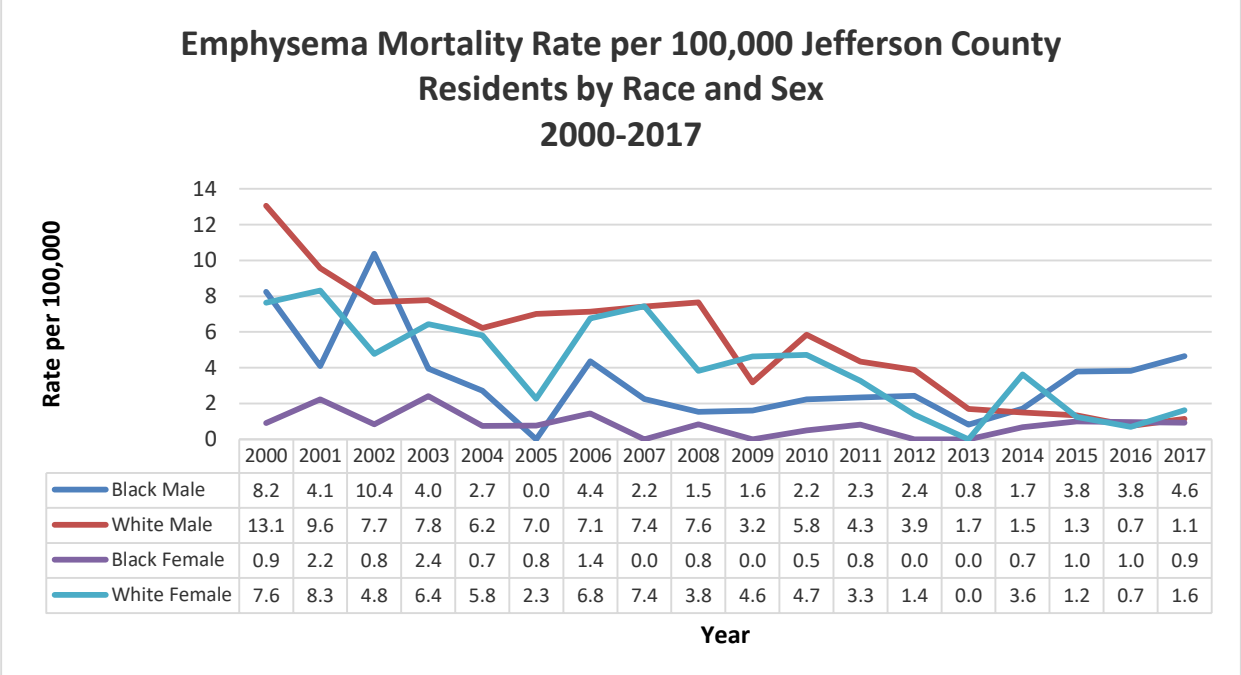
Emphysema, a form of chronic obstructive pulmonary disease, is a destructive lung disease associated with smoking. Jefferson County's overall emphysema mortality rate decreased by 5.6% (a relative percent change) from the 2012 rate of 1.8 per 100,000 population to the 2017 rate of 1.7 per 100,000 population. The declining rates have been most pronounced among white males.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	7.9	6.8	5.2	5.5	4.6	3.0	5.4	5.4	4.0	3.0	4.0	2.8	1.8	0.6	2.2	1.5	1.1	1.7
White	9.8	8.6	5.6	6.8	6.1	4.2	6.8	7.4	5.2	4.1	5.2	3.6	2.3	0.8	2.7	1.3	0.7	1.4
Black	3.2	2.8	4.4	2.7	1.4	0.5	2.4	0.8	1.2	0.5	1.2	1.3	0.8	0.4	1.1	1.8	1.9	2.2



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	7.9	6.8	5.2	5.5	4.6	3.0	5.4	5.4	4.0	3.0	4.0	2.8	1.8	0.6	2.2	1.5	1.1	1.7
Male	11.7	8.0	8.3	6.7	5.0	5.0	6.2	5.9	6.1	2.7	4.8	3.7	3.4	1.4	1.6	2.0	1.5	2.4
Female	5.6	6.4	3.5	5.1	4.1	1.8	5.1	5.1	2.8	3.1	3.4	2.3	0.9	0.0	2.6	1.2	0.8	1.3

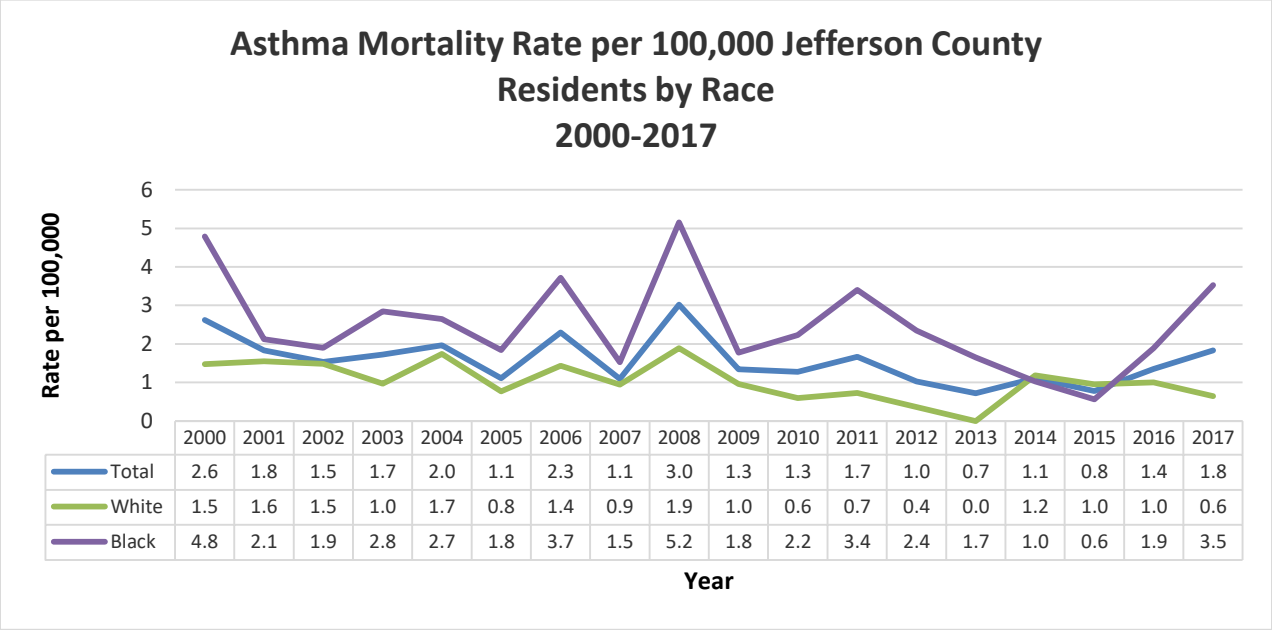


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Black Male	8.2	4.1	10.4	4.0	2.7	0.0	4.4	2.2	1.5	1.6	2.2	2.3	2.4	0.8	1.7	3.8	3.8	4.6
White Male	13.1	9.6	7.7	7.8	6.2	7.0	7.1	7.4	7.6	3.2	5.8	4.3	3.9	1.7	1.5	1.3	0.7	1.1
Black Female	0.9	2.2	0.8	2.4	0.7	0.8	1.4	0.0	0.8	0.0	0.5	0.8	0.0	0.0	0.7	1.0	1.0	0.9
White Female	7.6	8.3	4.8	6.4	5.8	2.3	6.8	7.4	3.8	4.6	4.7	3.3	1.4	0.0	3.6	1.2	0.7	1.6

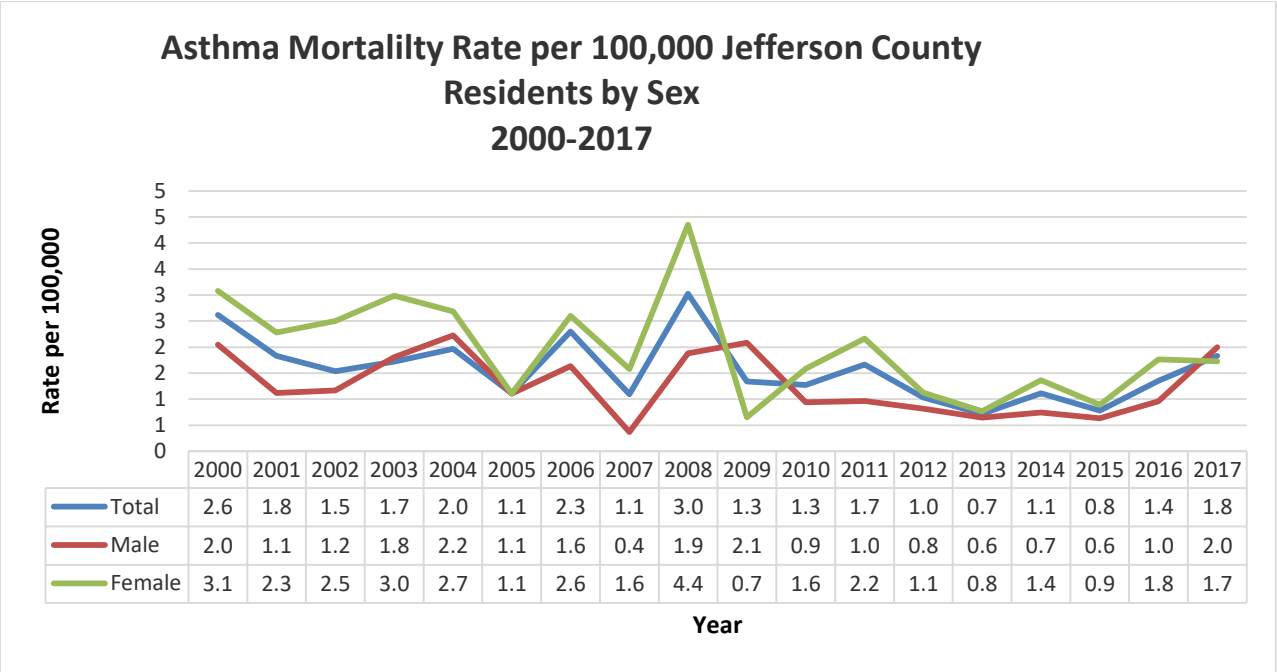
Asthma Mortality

Asthma is an inflammatory lung disease causing bronchiolar constriction and resulting in breathing difficulties. Overall asthma mortality rates have increased by 80% from the 2012 rate of 1.0 deaths per 100,000 population to the 2017 rate of 1.8 death per 100,000 population. The black sub-population's

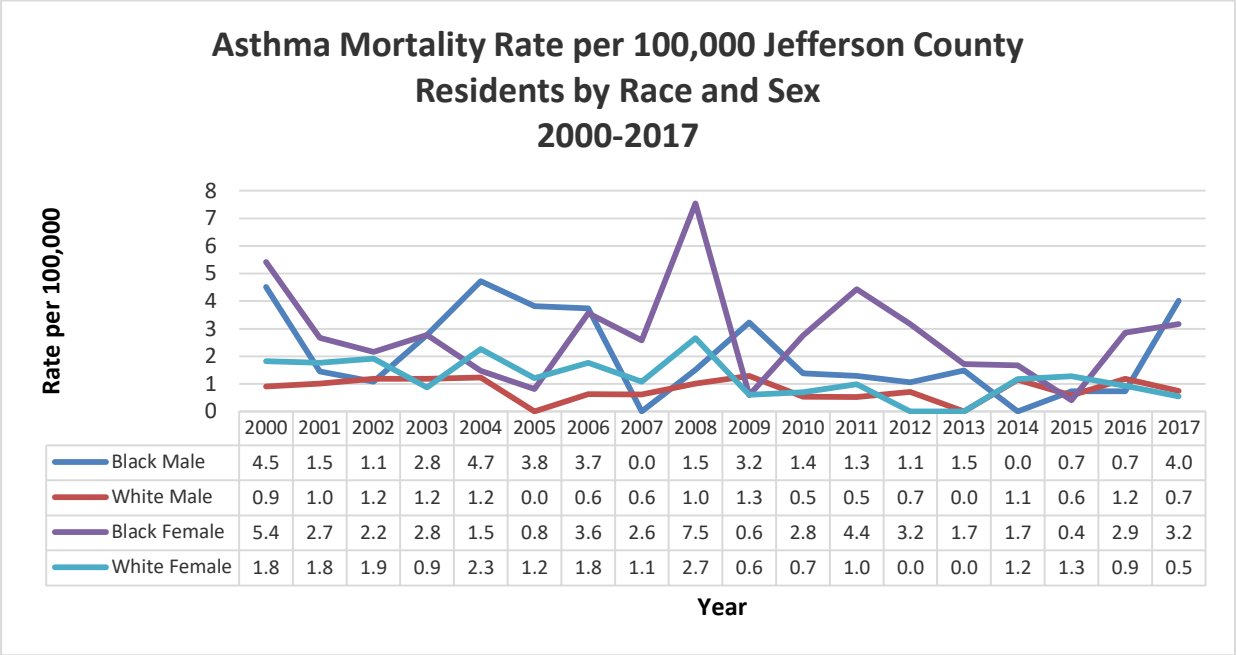
asthma mortality rate in 2017 was nearly six times higher than that of the white sub-population. Asthma mortality rates have typically remained higher for females than males in Jefferson County.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	2.6	1.8	1.5	1.7	2.0	1.1	2.3	1.1	3.0	1.3	1.3	1.7	1.0	0.7	1.1	0.8	1.4	1.8
White	1.5	1.6	1.5	1.0	1.7	0.8	1.4	0.9	1.9	1.0	0.6	0.7	0.4	0.0	1.2	1.0	1.0	0.6
Black	4.8	2.1	1.9	2.8	2.7	1.8	3.7	1.5	5.2	1.8	2.2	3.4	2.4	1.7	1.0	0.6	1.9	3.5



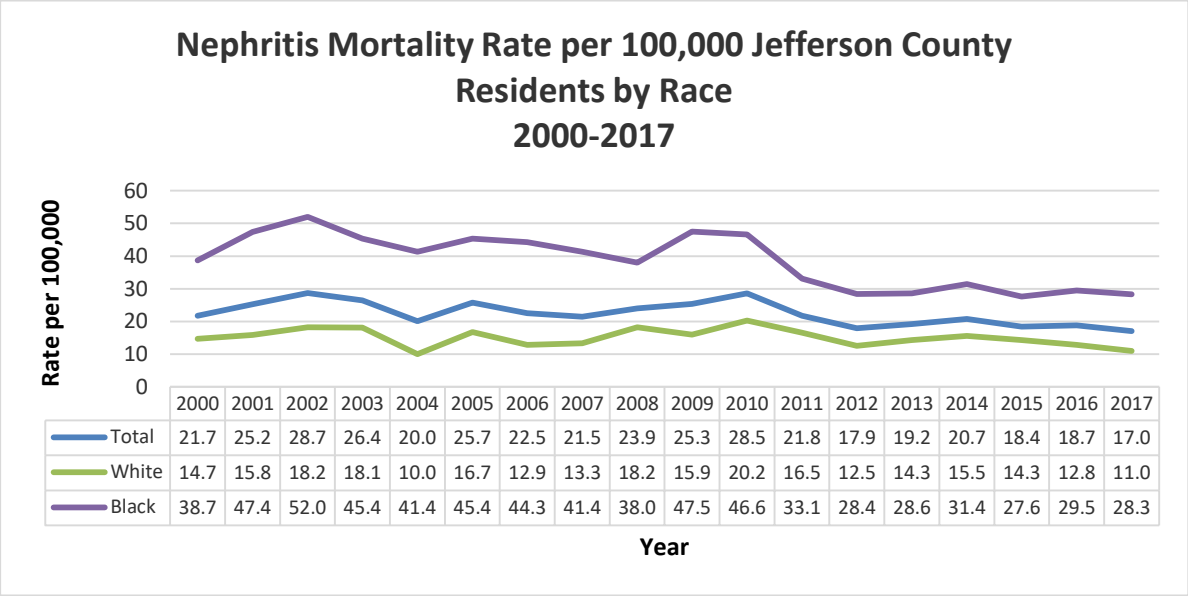
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	2.6	1.8	1.5	1.7	2.0	1.1	2.3	1.1	3.0	1.3	1.3	1.7	1.0	0.7	1.1	0.8	1.4	1.8
Male	2.0	1.1	1.2	1.8	2.2	1.1	1.6	0.4	1.9	2.1	0.9	1.0	0.8	0.6	0.7	0.6	1.0	2.0
Female	3.1	2.3	2.5	3.0	2.7	1.1	2.6	1.6	4.4	0.7	1.6	2.2	1.1	0.8	1.4	0.9	1.8	1.7



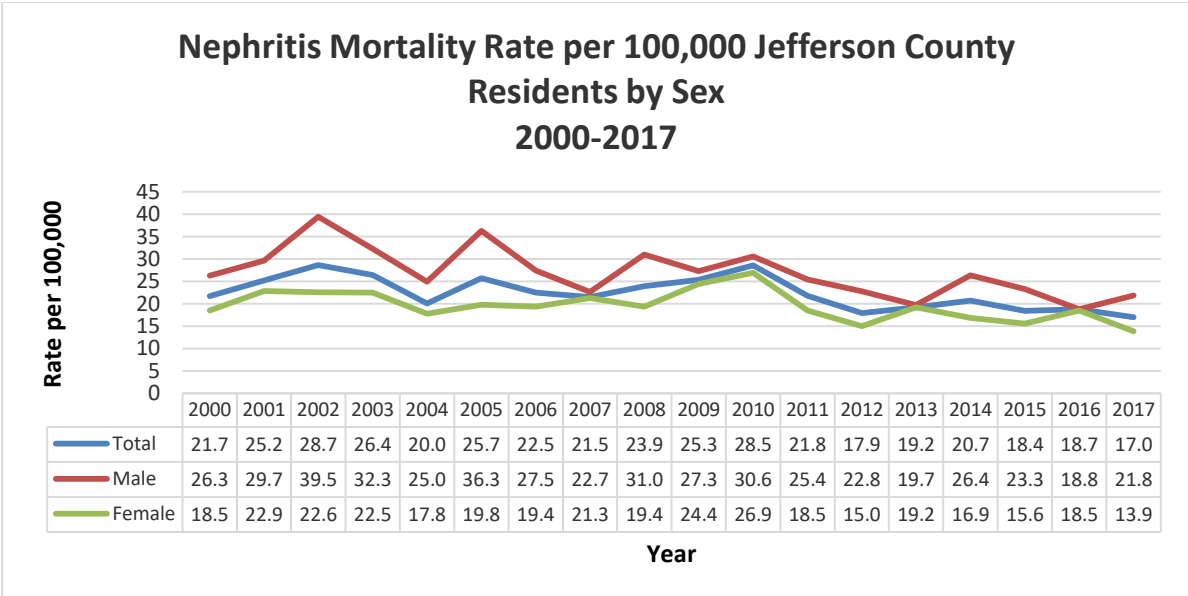
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Black Male	4.5	1.5	1.1	2.8	4.7	3.8	3.7	0.0	1.5	3.2	1.4	1.3	1.1	1.5	0.0	0.7	0.7	4.0
White Male	0.9	1.0	1.2	1.2	1.2	0.0	0.6	0.6	1.0	1.3	0.5	0.5	0.7	0.0	1.1	0.6	1.2	0.7
Black Female	5.4	2.7	2.2	2.8	1.5	0.8	3.6	2.6	7.5	0.6	2.8	4.4	3.2	1.7	1.7	0.4	2.9	3.2
White Female	1.8	1.8	1.9	0.9	2.3	1.2	1.8	1.1	2.7	0.6	0.7	1.0	0.0	0.0	1.2	1.3	0.9	0.5

Nephritis Mortality

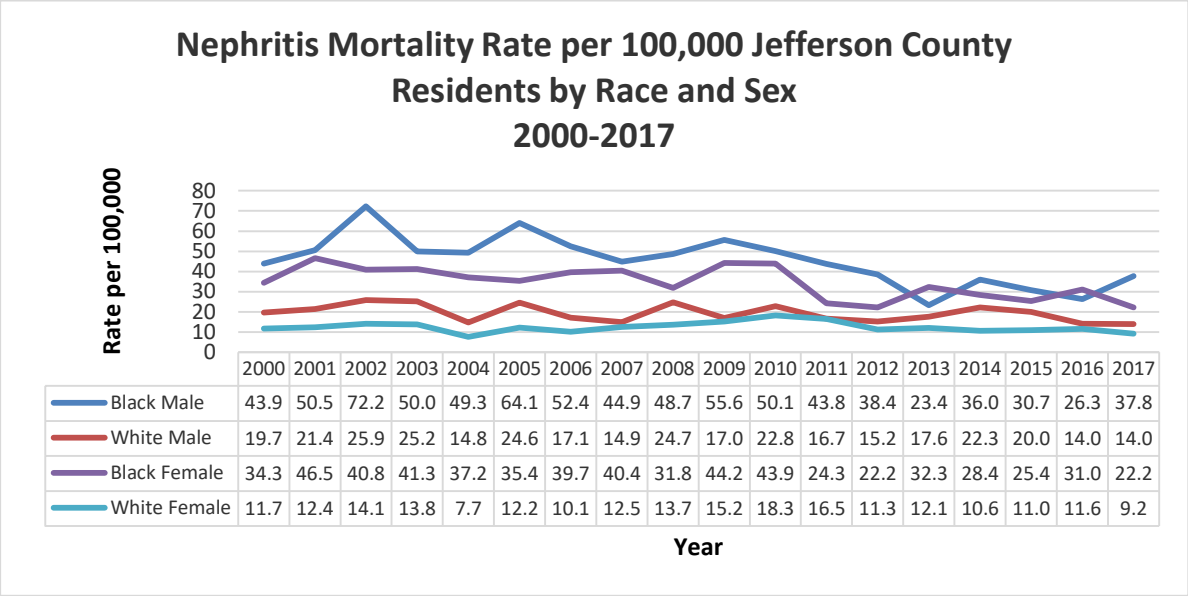
Nephritis is kidney disease caused by inflammation of the kidney and was seventh and sixth leading cause of death in Jefferson County during 2003 and 2012, respectively. In 2017, however, nephritis was not one of the county's ten leading causes of death. Overall nephritis mortality rates have declined since 2012 in comparison to death rates from nephritis from 2000 - 2011. Between 2012 and 2017, the gap in nephritis death rates between the black and white sub-populations increased. The 2017 nephritis mortality rate of 17.0 per 100,000 population is 5% (relative percent change) lower than the 2012 rate of 17.9 per 100,000 population. Nephritis mortality rates remain historically higher among the black sub-population and are typically higher among males than females. In 2017, the disparity in mortality rates from nephritis by race was statically significant.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	21.7	25.2	28.7	26.4	20.0	25.7	22.5	21.5	23.9	25.3	28.5	21.8	17.9	19.2	20.7	18.4	18.7	17.0
White	14.7	15.8	18.2	18.1	10.0	16.7	12.9	13.3	18.2	15.9	20.2	16.5	12.5	14.3	15.5	14.3	12.8	11.0
Black	38.7	47.4	52.0	45.4	41.4	45.4	44.3	41.4	38.0	47.5	46.6	33.1	28.4	28.6	31.4	27.6	29.5	28.3



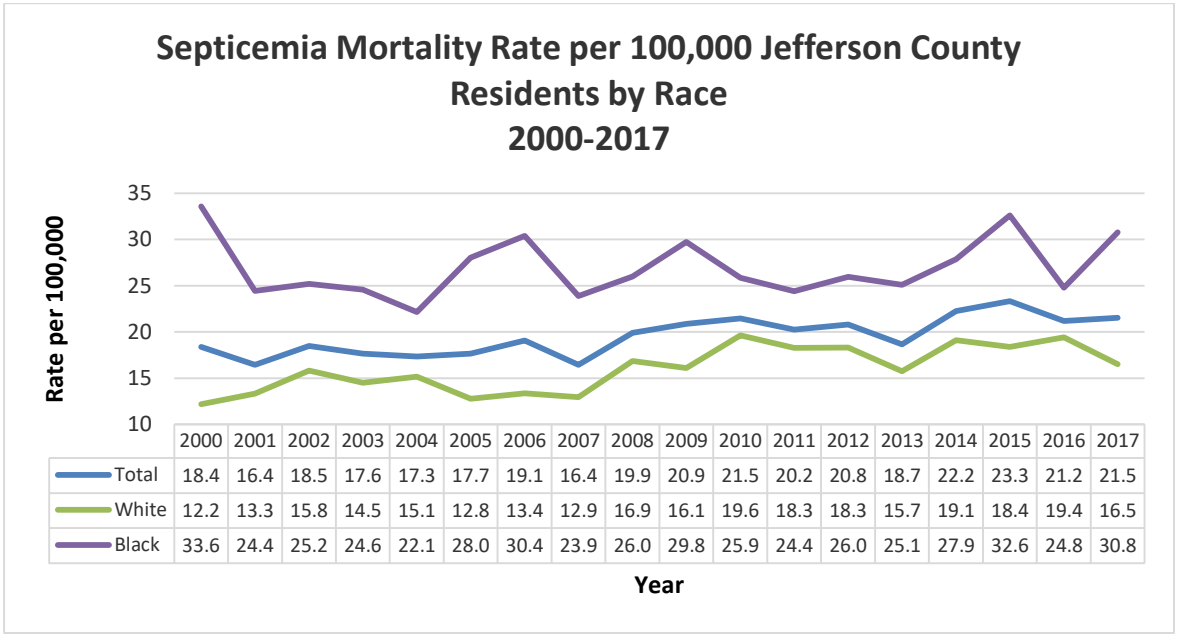
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	21.7	25.2	28.7	26.4	20.0	25.7	22.5	21.5	23.9	25.3	28.5	21.8	17.9	19.2	20.7	18.4	18.7	17.0
Male	26.3	29.7	39.5	32.3	25.0	36.3	27.5	22.7	31.0	27.3	30.6	25.4	22.8	19.7	26.4	23.3	18.8	21.8
Female	18.5	22.9	22.6	22.5	17.8	19.8	19.4	21.3	19.4	24.4	26.9	18.5	15.0	19.2	16.9	15.6	18.5	13.9



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Black Male	43.9	50.5	72.2	50.0	49.3	64.1	52.4	44.9	48.7	55.6	50.1	43.8	38.4	23.4	36.0	30.7	26.3	37.8
White Male	19.7	21.4	25.9	25.2	14.8	24.6	17.1	14.9	24.7	17.0	22.8	16.7	15.2	17.6	22.3	20.0	14.0	14.0
Black Female	34.3	46.5	40.8	41.3	37.2	35.4	39.7	40.4	31.8	44.2	43.9	24.3	22.2	32.3	28.4	25.4	31.0	22.2
White Female	11.7	12.4	14.1	13.8	7.7	12.2	10.1	12.5	13.7	15.2	18.3	16.5	11.3	12.1	10.6	11.0	11.6	9.2

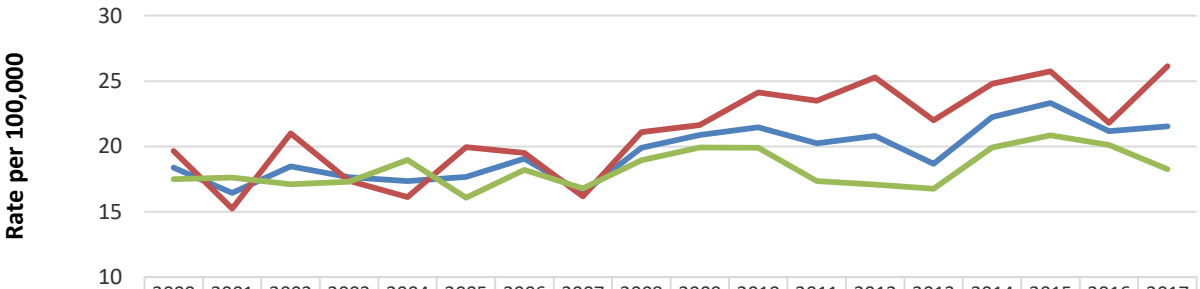
Septicemia Mortality

Septicemia is the result of a bacterial infection that enters the bloodstream and was the eighth leading cause of death in Jefferson County for 2012 and 2017. Overall septicemia mortality has increased since 2012. The 2017 rate of septicemia mortality at 21.5 per 100,000 population is 3.4% (relative percent change) higher than the 2012 septicemia mortality rate of 20.8 per 100,000 population. The disparity in death rates from septicemia was statistically significant in 2017.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	18.4	16.4	18.5	17.6	17.3	17.7	19.1	16.4	19.9	20.9	21.5	20.2	20.8	18.7	22.2	23.3	21.2	21.5
White	12.2	13.3	15.8	14.5	15.1	12.8	13.4	12.9	16.9	16.1	19.6	18.3	18.3	15.7	19.1	18.4	19.4	16.5
Black	33.6	24.4	25.2	24.6	22.1	28.0	30.4	23.9	26.0	29.8	25.9	24.4	26.0	25.1	27.9	32.6	24.8	30.8

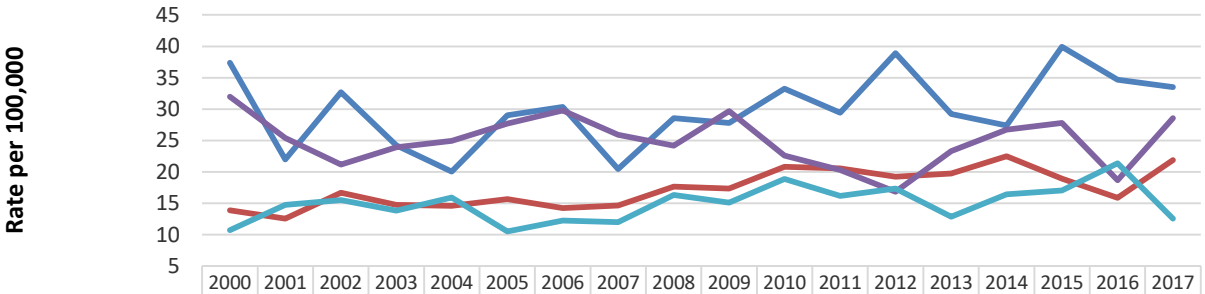
Septicemia Mortality Rates per 100,000 Jefferson County Residents by Sex 2000-2017



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	18.4	16.4	18.5	17.6	17.3	17.7	19.1	16.4	19.9	20.9	21.5	20.2	20.8	18.7	22.2	23.3	21.2	21.5
Male	19.6	15.2	21.0	17.4	16.1	19.9	19.5	16.2	21.1	21.6	24.1	23.5	25.3	22.0	24.8	25.8	21.8	26.1
Female	17.5	17.6	17.1	17.3	19.0	16.1	18.2	16.8	18.9	19.9	19.9	17.3	17.1	16.8	19.9	20.9	20.1	18.2

Year

Septicemia Mortality Rate per 100,000 Jefferson County Residents by Race and Sex 2000-2017

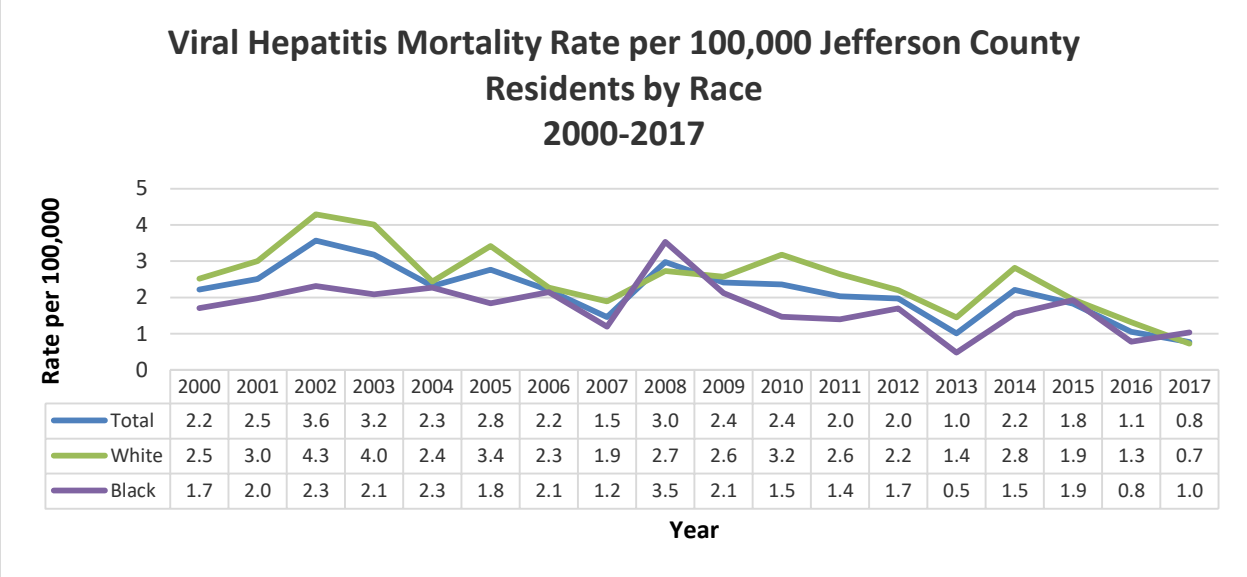


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Black Male	37.4	22.0	32.7	24.2	20.0	29.0	30.3	20.5	28.5	27.8	33.2	29.4	38.9	29.2	27.4	39.9	34.7	33.5
White Male	13.9	12.5	16.7	14.8	14.6	15.7	14.2	14.6	17.6	17.3	20.8	20.6	19.2	19.7	22.5	18.9	15.9	21.9
Black Female	32.0	25.4	21.1	23.9	24.9	27.7	29.8	25.9	24.2	29.7	22.6	20.3	16.8	23.3	26.7	27.8	18.7	28.6
White Female	10.7	14.7	15.5	13.8	15.9	10.5	12.3	12.0	16.3	15.1	18.9	16.1	17.3	12.9	16.4	17.0	21.4	12.5

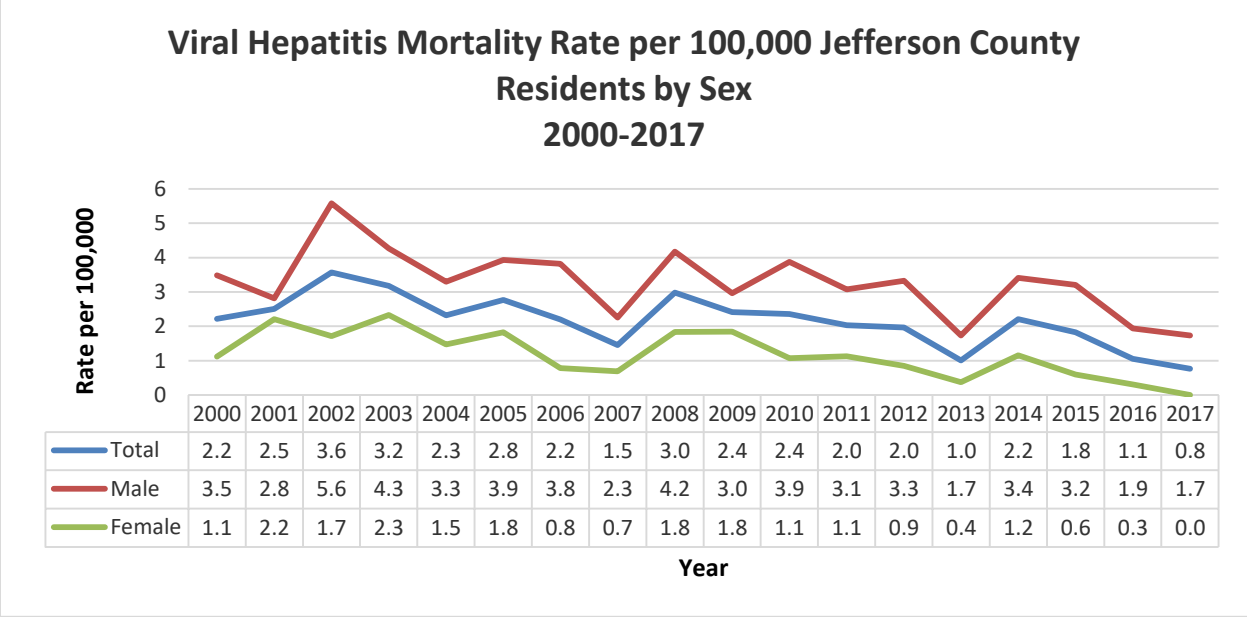
Year

Viral Hepatitis Mortality

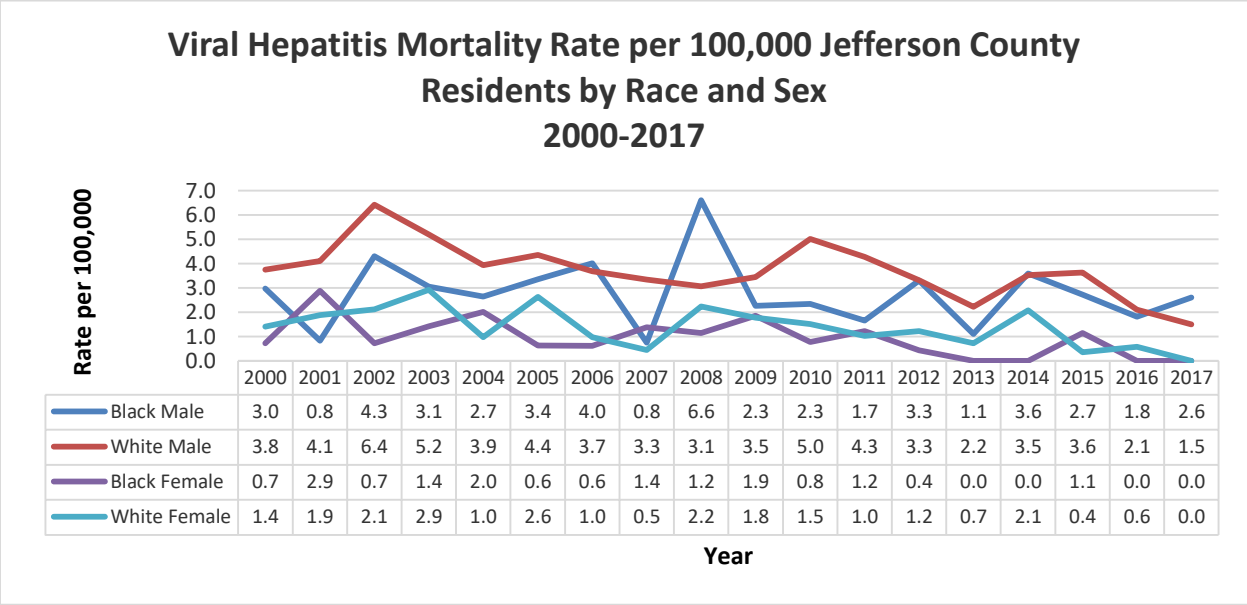
Viral Hepatitis is a virus which affects the liver. The most common types of viral hepatitis include hepatitis A, B and C. The overall rate of viral hepatitis in Jefferson County decreased from 2.0 in 2012 to 0.8 in 2017. The male sub-population has exhibited higher viral hepatitis mortality rates since 2000.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	2.2	2.5	3.6	3.2	2.3	2.8	2.2	1.5	3.0	2.4	2.4	2.0	2.0	1.0	2.2	1.8	1.1	0.8
White	2.5	3.0	4.3	4.0	2.4	3.4	2.3	1.9	2.7	2.6	3.2	2.6	2.2	1.4	2.8	1.9	1.3	0.7
Black	1.7	2.0	2.3	2.1	2.3	1.8	2.1	1.2	3.5	2.1	1.5	1.4	1.7	0.5	1.5	1.9	0.8	1.0



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	2.2	2.5	3.6	3.2	2.3	2.8	2.2	1.5	3.0	2.4	2.4	2.0	2.0	1.0	2.2	1.8	1.1	0.8
Male	3.5	2.8	5.6	4.3	3.3	3.9	3.8	2.3	4.2	3.0	3.9	3.1	3.3	1.7	3.4	3.2	1.9	1.7
Female	1.1	2.2	1.7	2.3	1.5	1.8	0.8	0.7	1.8	1.8	1.1	1.1	0.9	0.4	1.2	0.6	0.3	0.0



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Black Male	3.0	0.8	4.3	3.1	2.7	3.4	4.0	0.8	6.6	2.3	2.3	1.7	3.3	1.1	3.6	2.7	1.8	2.6
White Male	3.8	4.1	6.4	5.2	3.9	4.4	3.7	3.3	3.1	3.5	5.0	4.3	3.3	2.2	3.5	3.6	2.1	1.5
Black Female	0.7	2.9	0.7	1.4	2.0	0.6	0.6	1.4	1.2	1.9	0.8	1.2	0.4	0.0	0.0	1.1	0.0	0.0
White Female	1.4	1.9	2.1	2.9	1.0	2.6	1.0	0.5	2.2	1.8	1.5	1.0	1.2	0.7	2.1	0.4	0.6	0.0

Mortality Findings

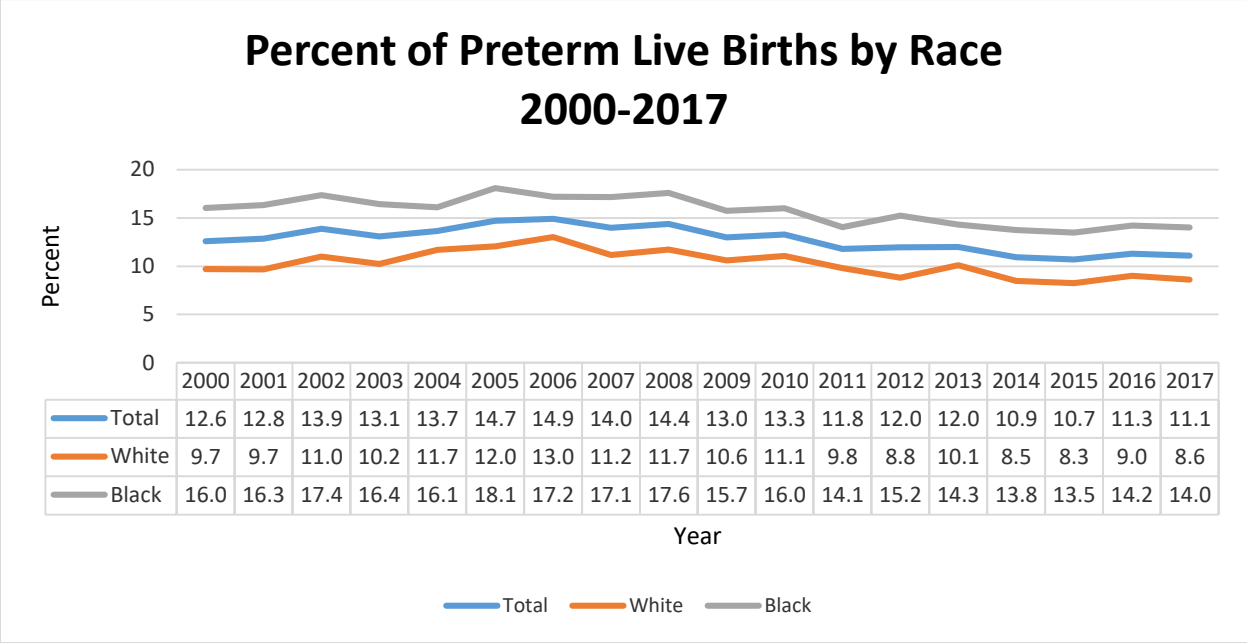
The overall all-cause mortality rate for Jefferson County has increased statically significantly between 2012 and 2017. The increased overall mortality rates were observed in the male, female, and white sub-populations and reached statistical significance for male and white residents. Notably, black females experienced a slight reduction in overall mortality between 2012 and 2017. The leading three causes of death in Jefferson County are heart disease, cancer and cerebrovascular disease, respectively. While heart disease and overall cancer mortality rates decreased between 2012 and 2017, the cerebrovascular disease mortality rate increased. The cerebrovascular disease mortality rate has decreased among the black sub-population but increased among the white sub-population. While heart disease and overall cancer mortality decreased in the black and white sub-populations, it increased in the other race category. Among different types of cancer, mortality rates for liver, lung, breast and colorectal cancers decreased. Prostate and cervical cancer mortality increased from 2012 to 2017. During this time frame, rates of homicide and drug-related deaths increased. In 2017, the overall homicide rate at 26.5 per 100,000 population was statically higher than 2012. The homicide rate for the black sub-population was statistically higher in 2017 than in 2012. Rates of stroke, cirrhosis, unintentional injury, pneumonia/influenza, Alzheimer's, hypertension, COPD, asthma and septicemia mortality increased from 2012 to 2017. Rates of diabetes, HIV, motor vehicle accident, emphysema, nephritis and viral hepatitis mortality decreased from 2012 to 2017.

Maternal and Child Health[1, 54-65]

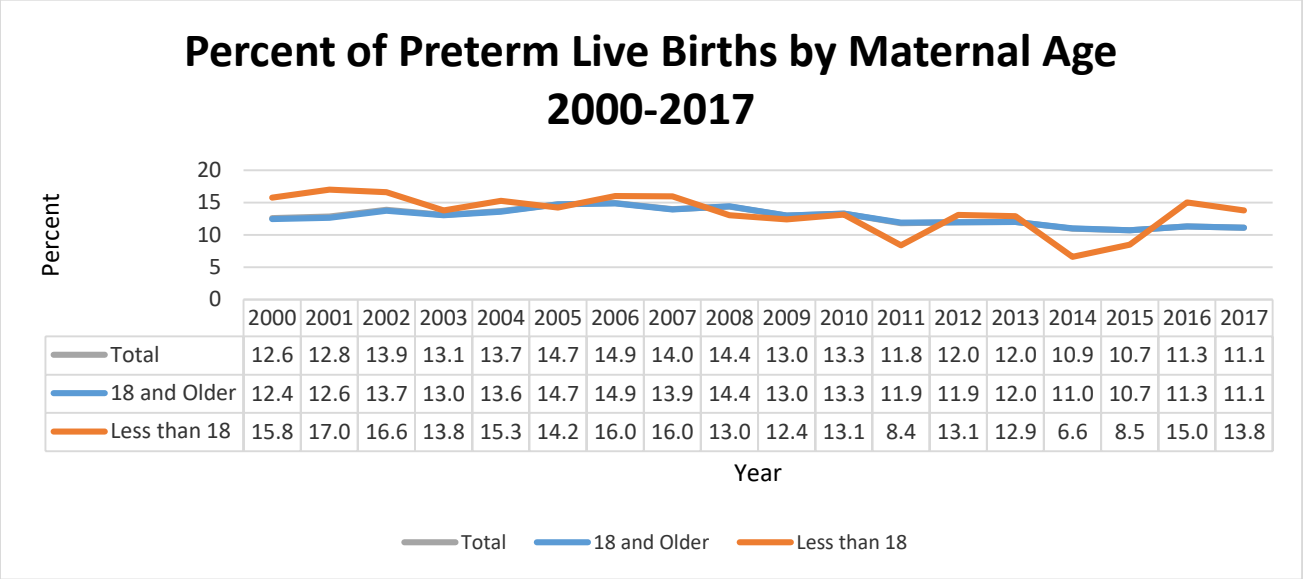
The indicators in the maternal and child health category represent the health of women and children. Data indicators include preterm births, very low birth weight, smoking status during pregnancy, adequate prenatal care, intrauterine growth restriction, short interconceptional time period, previous fetal loss, teen pregnancy, teen fertility rates, Caesarean Section deliveries, and infant and childhood mortality rates.

Preterm Births

Preterm births are defined as births that occur before 37 weeks' gestation. Preterm birth rates decreased among the white and black sub-populations since 2000; however this trend is inconclusive and will need continued monitoring to determine significance. Among teens, preterm births rates have fluctuated, but decreased slightly for women age 18 years and older. The national Healthy People 2020 goal is 11.4% of live births are preterm deliveries. In 2017, the Jefferson County preterm birth rate was 11.1%.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	12.6	12.8	13.9	13.1	13.7	14.7	14.9	14.0	14.4	13.0	13.3	11.8	12.0	12.0	10.9	10.7	11.3	11.1
White	9.7	9.7	11.0	10.2	11.7	12.0	13.0	11.2	11.7	10.6	11.1	9.8	8.8	10.1	8.5	8.3	9.0	8.6
Black	16.0	16.3	17.4	16.4	16.1	18.1	17.2	17.1	17.6	15.7	16.0	14.1	15.2	14.3	13.8	13.5	14.2	14.0

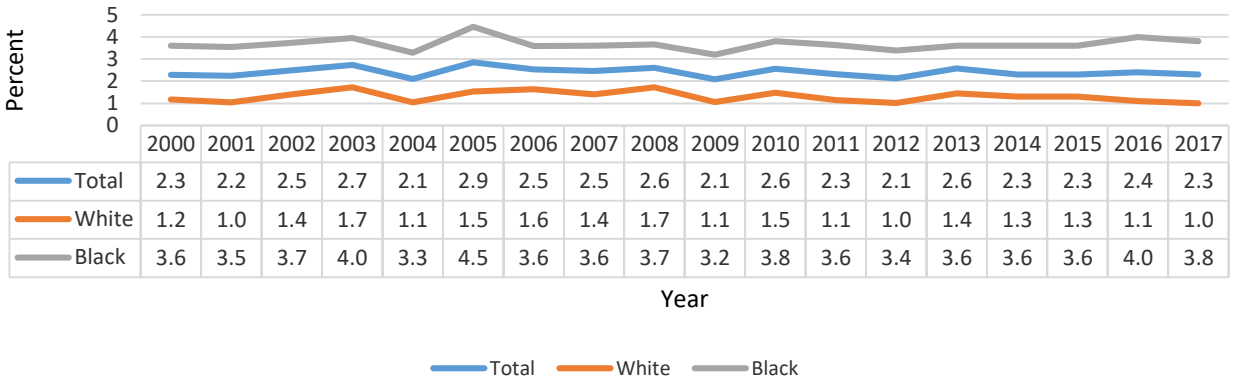


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	12.6	12.8	13.9	13.1	13.7	14.7	14.9	14.0	14.4	13.0	13.3	11.8	12.0	12.0	10.9	10.7	11.3	11.1
18 and Older	12.4	12.6	13.7	13.0	13.6	14.7	14.9	13.9	14.4	13.0	13.3	11.9	11.9	12.0	11.0	10.7	11.3	11.1
Less than 18	15.8	17.0	16.6	13.8	15.3	14.2	16.0	16.0	13.0	12.4	13.1	8.4	13.1	12.9	6.6	8.5	15.0	13.8

Very Low Birth Weight

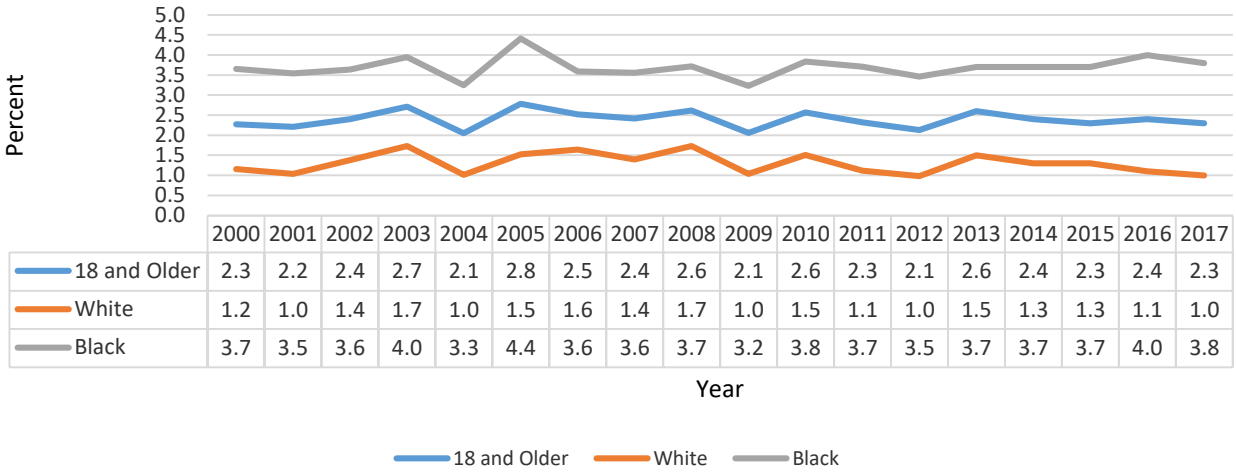
Very low birth weight infants, those weighing less than 1,500 grams at birth, are often preterm and have more health risks than normal weight infants. The black sub-population of Jefferson County has a higher percentage (3.8%) of very low birth weight infants than the white sub-population (1.0%). Although there are fluctuations year to year in the percentage of very low birth weight infants, the index measure is small, so even a small change from year to year leads to a large percent change. The Healthy People 2020 goal is that no more than 1.4% of live births are very low birth weight infants; in 2017, 2.3% of Jefferson County live births were very low birth weight infants indicating a rate higher than the national goal and a need for improvement in this measure. Although Jefferson County has experienced an increase in the percentage of very low birth weight infants since 2012, the variance between the 2012 and 2017 rates was not statistically significant.

Percent of Live Births that are Very Low Birth Weight by Race 2000-2017



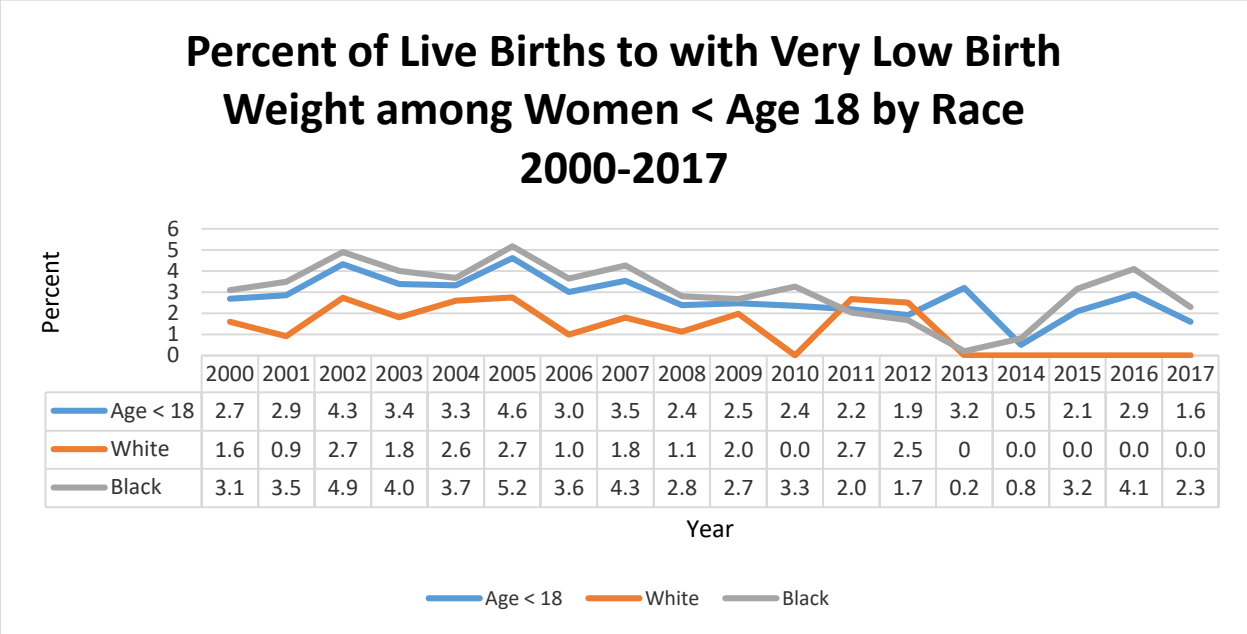
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	2.3	2.2	2.5	2.7	2.1	2.9	2.5	2.5	2.6	2.1	2.6	2.3	2.1	2.6	2.3	2.3	2.4	2.3
White	1.2	1.0	1.4	1.7	1.1	1.5	1.6	1.4	1.7	1.1	1.5	1.1	1.0	1.4	1.3	1.3	1.1	1.0
Black	3.6	3.5	3.7	4.0	3.3	4.5	3.6	3.6	3.7	3.2	3.8	3.6	3.4	3.6	3.6	3.6	4.0	3.8

Percent of Live Births with Very Low Birth Weight among Women Age ≥ 18 by Race 2000-2017



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
18 and Older	2.3	2.2	2.4	2.7	2.1	2.8	2.5	2.4	2.6	2.1	2.6	2.3	2.1	2.6	2.4	2.3	2.4	2.3
White	1.2	1.0	1.4	1.7	1.0	1.5	1.6	1.4	1.7	1.0	1.5	1.1	1.0	1.5	1.3	1.3	1.1	1.0
Black	3.7	3.5	3.6	4.0	3.3	4.4	3.6	3.6	3.7	3.2	3.8	3.7	3.5	3.7	3.7	3.7	4.0	3.8

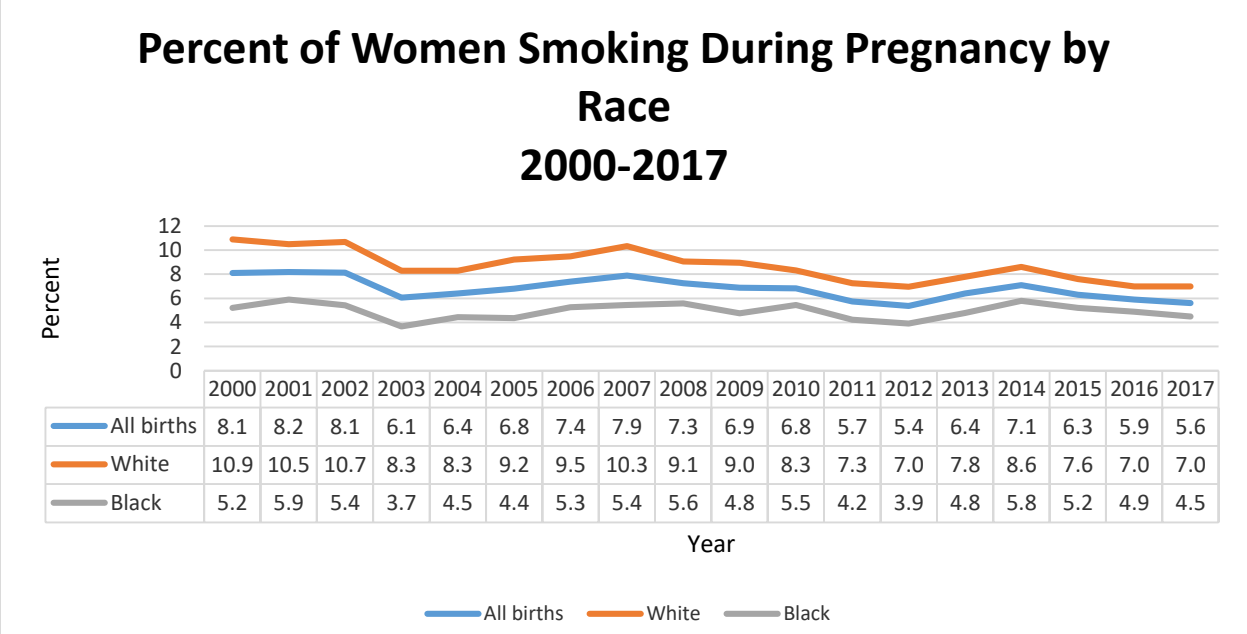
Among women less than 18 years of age, the percent of live births that are very low birth weight has decreased over time.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Age < 18	2.7	2.9	4.3	3.4	3.3	4.6	3.0	3.5	2.4	2.5	2.4	2.2	1.9	3.2	0.5	2.1	2.9	1.6
White	1.6	0.9	2.7	1.8	2.6	2.7	1.0	1.8	1.1	2.0	0.0	2.7	2.5	0	0.0	0.0	0.0	0.0
Black	3.1	3.5	4.9	4.0	3.7	5.2	3.6	4.3	2.8	2.7	3.3	2.0	1.7	0.2	0.8	3.2	4.1	2.3

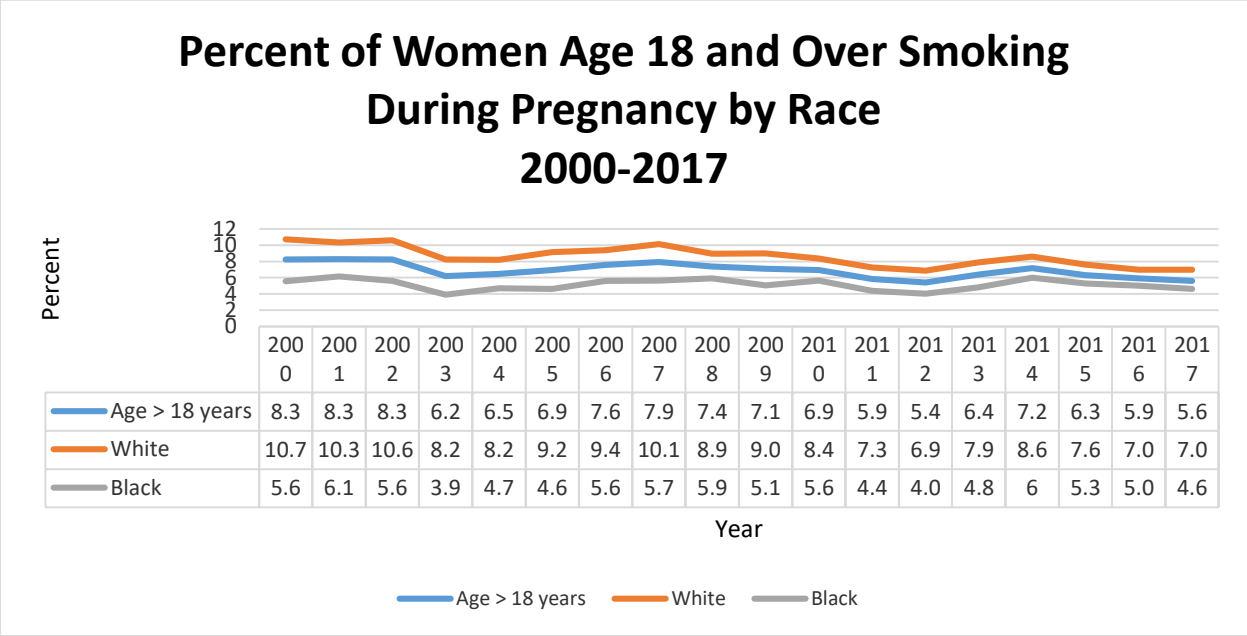
Smoking during Pregnancy

The percent of Jefferson County women who smoked during pregnancy has decreased since 2000 across all race and age categories. Jefferson County had 94.4% of women abstaining from smoking during pregnancy in 2017, exceeding the national Healthy People 2020 goal of 89.6% women abstaining from smoking during pregnancy.

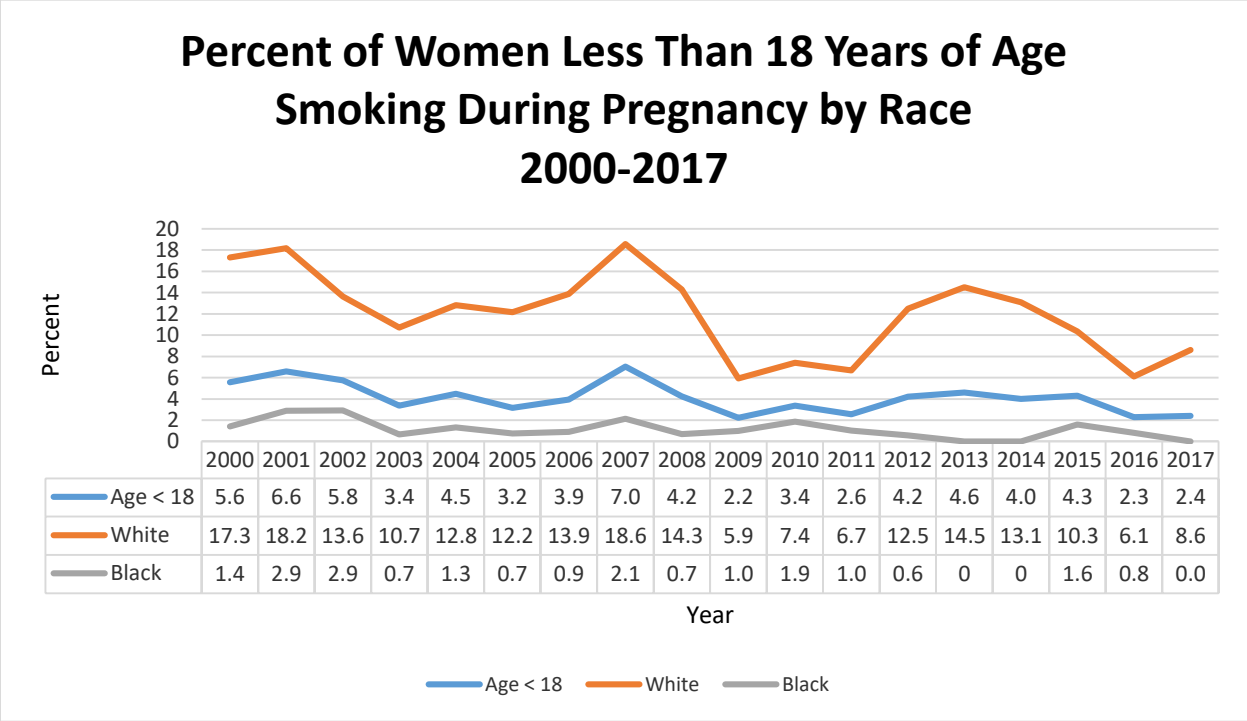


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
All births	8.1	8.2	8.1	6.1	6.4	6.8	7.4	7.9	7.3	6.9	6.8	5.7	5.4	6.4	7.1	6.3	5.9	5.6
White	10.9	10.5	10.7	8.3	8.3	9.2	9.5	10.3	9.1	9.0	8.3	7.3	7.0	7.8	8.6	7.6	7.0	7.0
Black	5.2	5.9	5.4	3.7	4.5	4.4	5.3	5.4	5.6	4.8	5.5	4.2	3.9	4.8	5.8	5.2	4.9	4.5

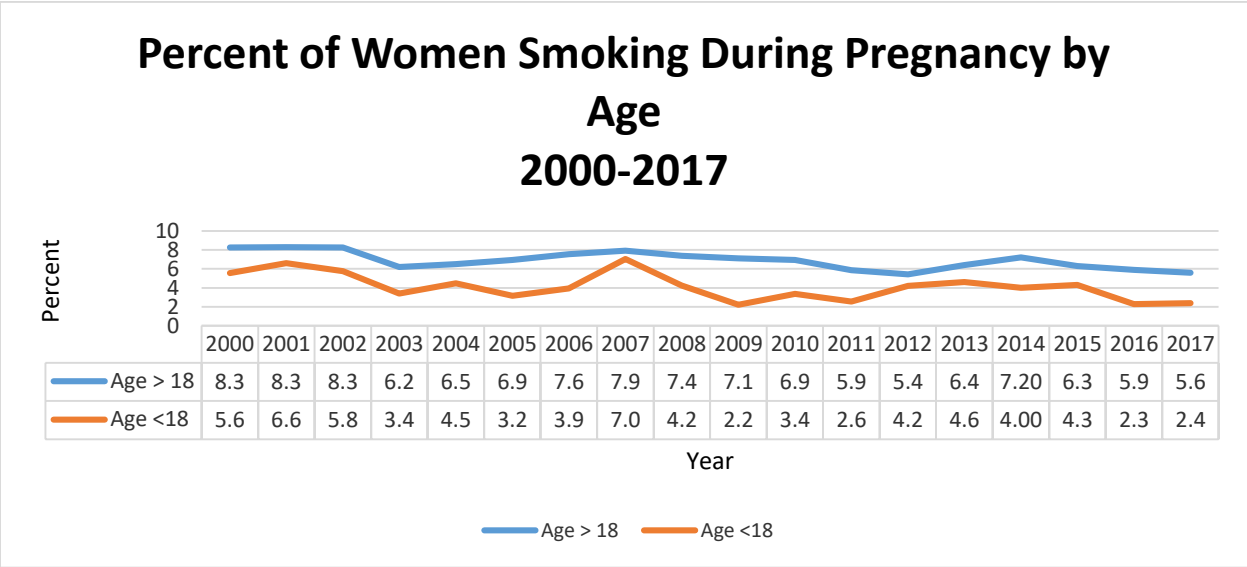
Among women less than 18 years of age, the percent of mothers who smoked during pregnancy was higher among the white sub-population as compared to the black sub-population, but was not statistically different.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Age > 18 years	8.3	8.3	8.3	6.2	6.5	6.9	7.6	7.9	7.4	7.1	6.9	5.9	5.4	6.4	7.2	6.3	5.9	5.6
White	10.7	10.3	10.6	8.2	8.2	9.2	9.4	10.1	8.9	9.0	8.4	7.3	6.9	7.9	8.6	7.6	7.0	7.0
Black	5.6	6.1	5.6	3.9	4.7	4.6	5.6	5.7	5.9	5.1	5.6	4.4	4.0	4.8	6	5.3	5.0	4.6



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Age < 18	5.6	6.6	5.8	3.4	4.5	3.2	3.9	7.0	4.2	2.2	3.4	2.6	4.2	4.6	4.0	4.3	2.3	2.4
White	17.3	18.2	13.6	10.7	12.8	12.2	13.9	18.6	14.3	5.9	7.4	6.7	12.5	14.5	13.1	10.3	6.1	8.6
Black	1.4	2.9	2.9	0.7	1.3	0.7	0.9	2.1	0.7	1.0	1.9	1.0	0.6	0	0	1.6	0.8	0.0

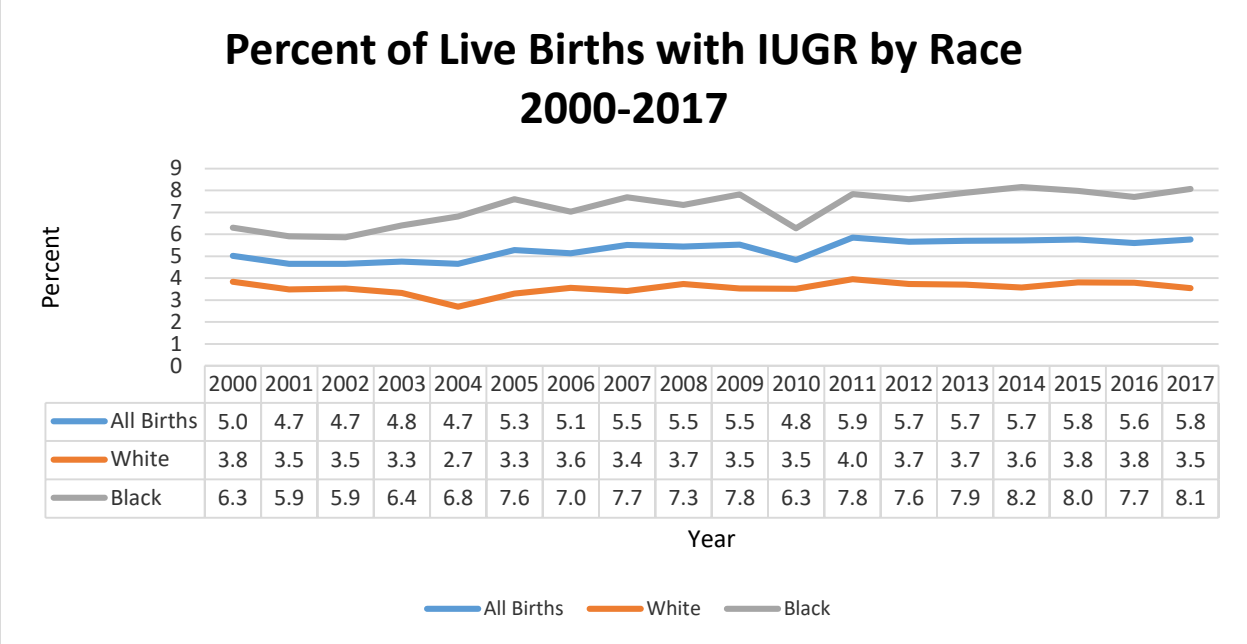


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Age > 18	8.3	8.3	8.3	6.2	6.5	6.9	7.6	7.9	7.4	7.1	6.9	5.9	5.4	6.4	7.20	6.3	5.9	5.6
Age <18	5.6	6.6	5.8	3.4	4.5	3.2	3.9	7.0	4.2	2.2	3.4	2.6	4.2	4.6	4.00	4.3	2.3	2.4

Intrauterine Growth Restriction

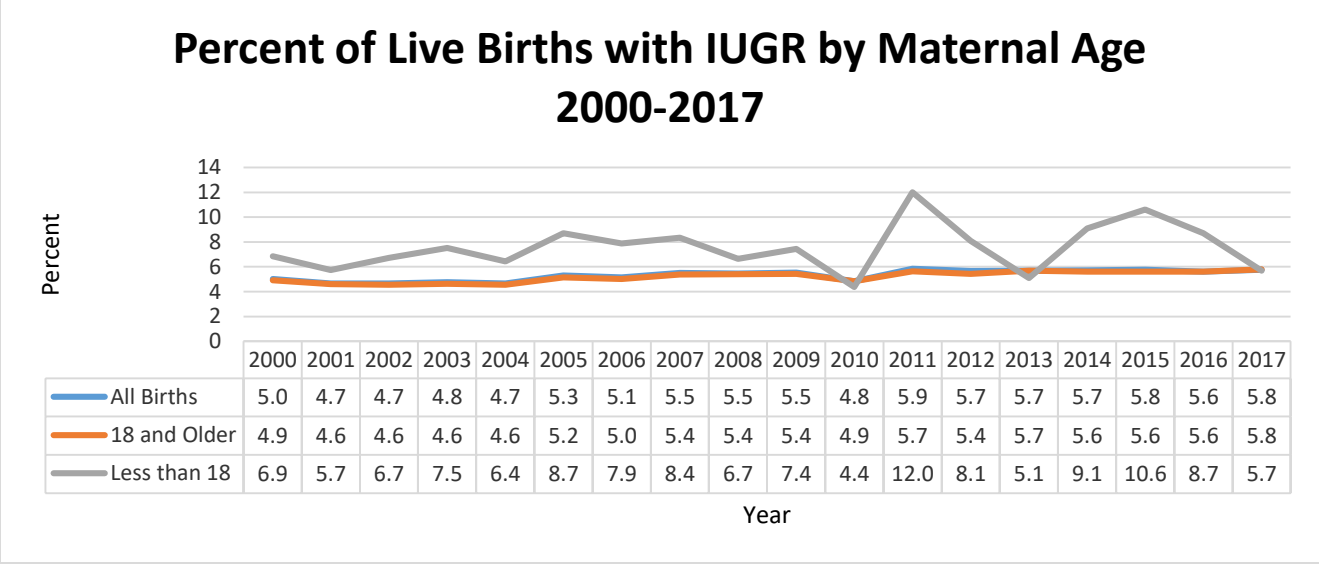
Intrauterine growth restriction (IUGR) indicates limited fetal growth potential and carries an increased risk of perinatal morbidity and mortality. Intrauterine growth restriction is defined as a fetus whose estimated weight is below the tenth percentile for gestational age and whose abdominal circumference is less than the 2.5th percentile. Accurate early dating in pregnancy is important for the diagnosis of

intrauterine growth restriction. IUGR increased slightly since 2000 in Jefferson County. The percentage of live births with IUGR disproportionately impacts black infants. As IUGR is present in only a small percentage of live births, a small change in the number of cases can translate to large percent change in this indicator.

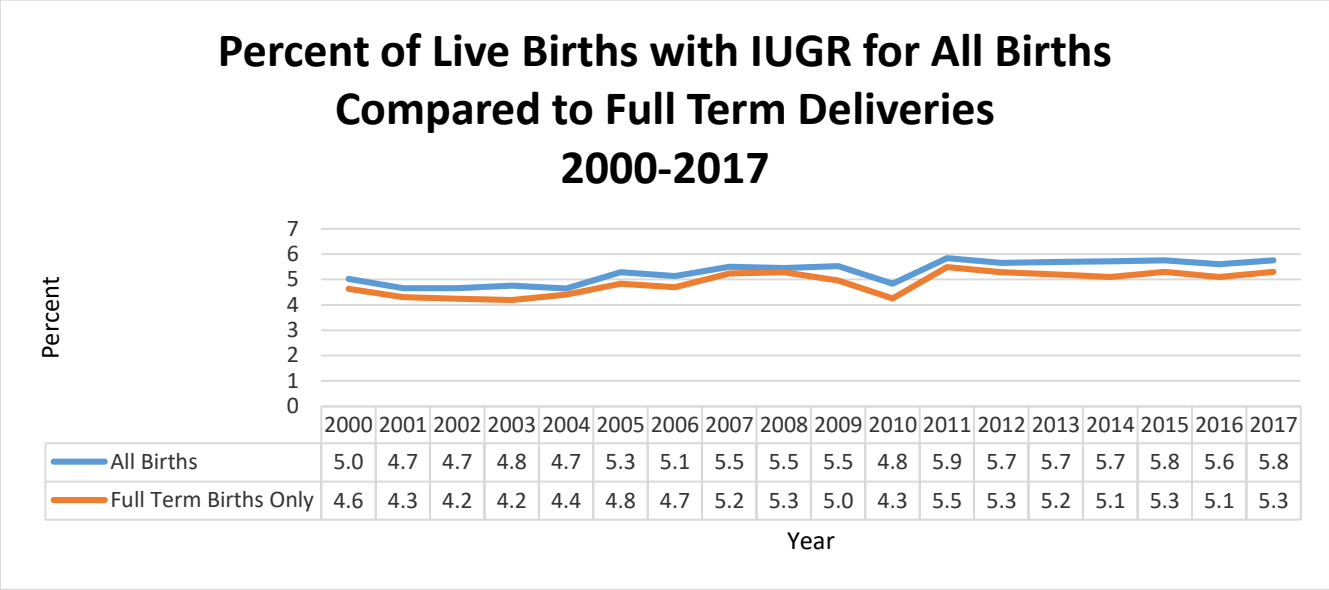


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
All Births	5.0	4.7	4.7	4.8	4.7	5.3	5.1	5.5	5.5	5.5	4.8	5.9	5.7	5.7	5.7	5.8	5.6	5.8
White	3.8	3.5	3.5	3.3	2.7	3.3	3.6	3.4	3.7	3.5	3.5	4.0	3.7	3.7	3.6	3.8	3.8	3.5
Black	6.3	5.9	5.9	6.4	6.8	7.6	7.0	7.7	7.3	7.8	6.3	7.8	7.6	7.9	8.2	8.0	7.7	8.1

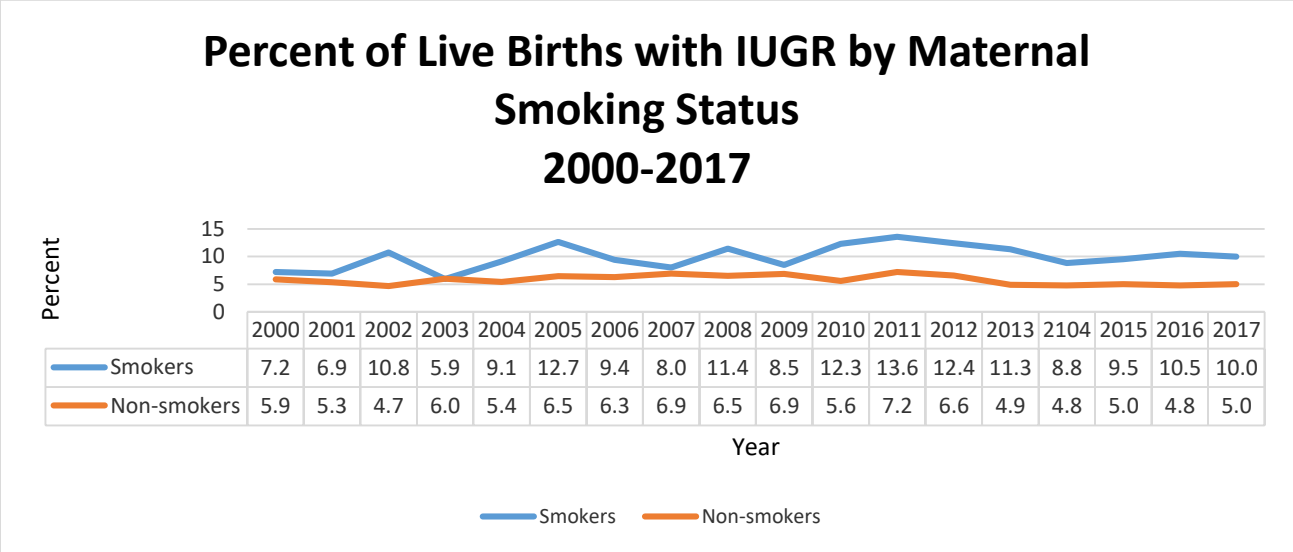
Rates of IUGR are higher among preterm deliveries than among full term deliveries.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
All Births	5.0	4.7	4.7	4.8	4.7	5.3	5.1	5.5	5.5	5.5	4.8	5.9	5.7	5.7	5.7	5.8	5.6	5.8
18 and Older	4.9	4.6	4.6	4.6	4.6	5.2	5.0	5.4	5.4	5.4	4.9	5.7	5.4	5.7	5.6	5.6	5.6	5.8
Less than 18	6.9	5.7	6.7	7.5	6.4	8.7	7.9	8.4	6.7	7.4	4.4	12.0	8.1	5.1	9.1	10.6	8.7	5.7



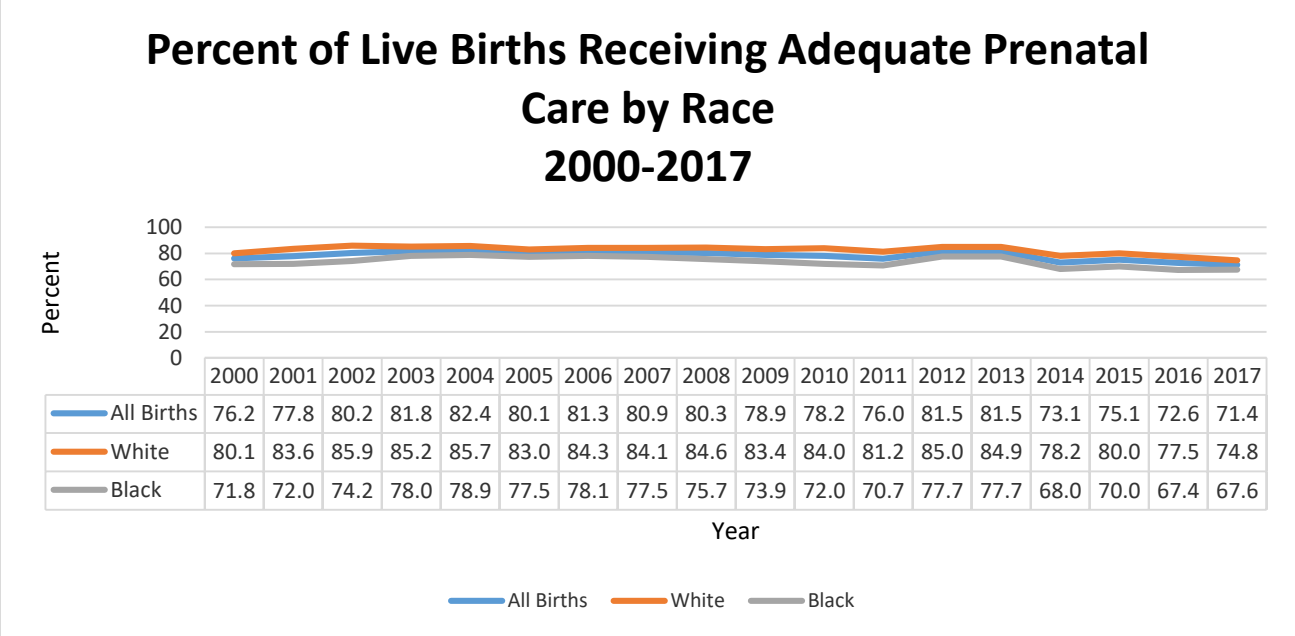
Among mothers who smoke, the percent of live births with IUGR is higher than the percent with IUGR among maternal non-smokers.



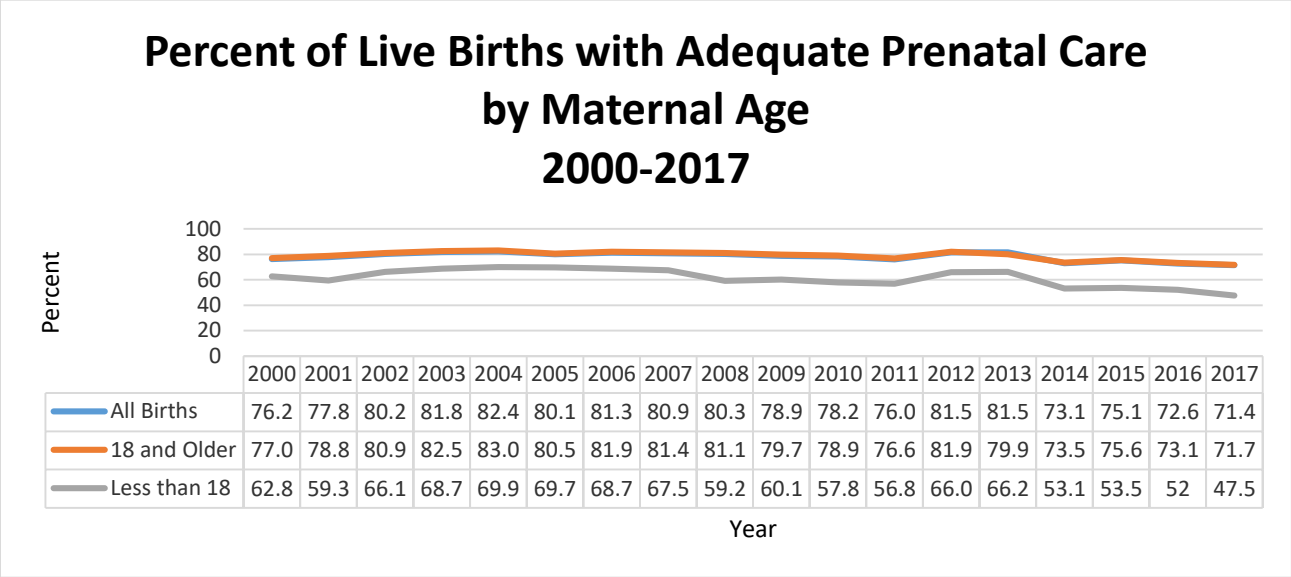
Adequate Prenatal Care

Adequacy of prenatal care is measured by the Adequacy of Prenatal Care Utilization Index. This index is based on the timing of prenatal care initiation and the adequacy of received services once prenatal care begins. Adequate prenatal care is considered to be initiation of prenatal care in the first month of pregnancy, followed by prenatal visits every four weeks through 28 weeks gestation, a prenatal visit

every 2 weeks between 28 weeks and 36 weeks gestation, and weekly prenatal visits from 36 weeks gestation until delivery. The Adequacy of Prenatal Care Utilization Index measures the expected number of visits adjusted for the timing of the initial prenatal visit. In 2017, 71.4% of live births in Jefferson County received adequate prenatal care. There has been a statistically significant decrease in this measure since the last Community Health Assessment, which used 2012 data as a reference. This statistically significant decrease was observed in both the white and black sub-populations. Jefferson County's 2017 percentage of live births receiving adequate prenatal care is less than the Healthy People 2020 goal of 77.6%. The mothers of black infants and mothers less than 18 years of age are more likely to have received inadequate prenatal care based on the Adequacy of Prenatal Care Index than older and white mothers.



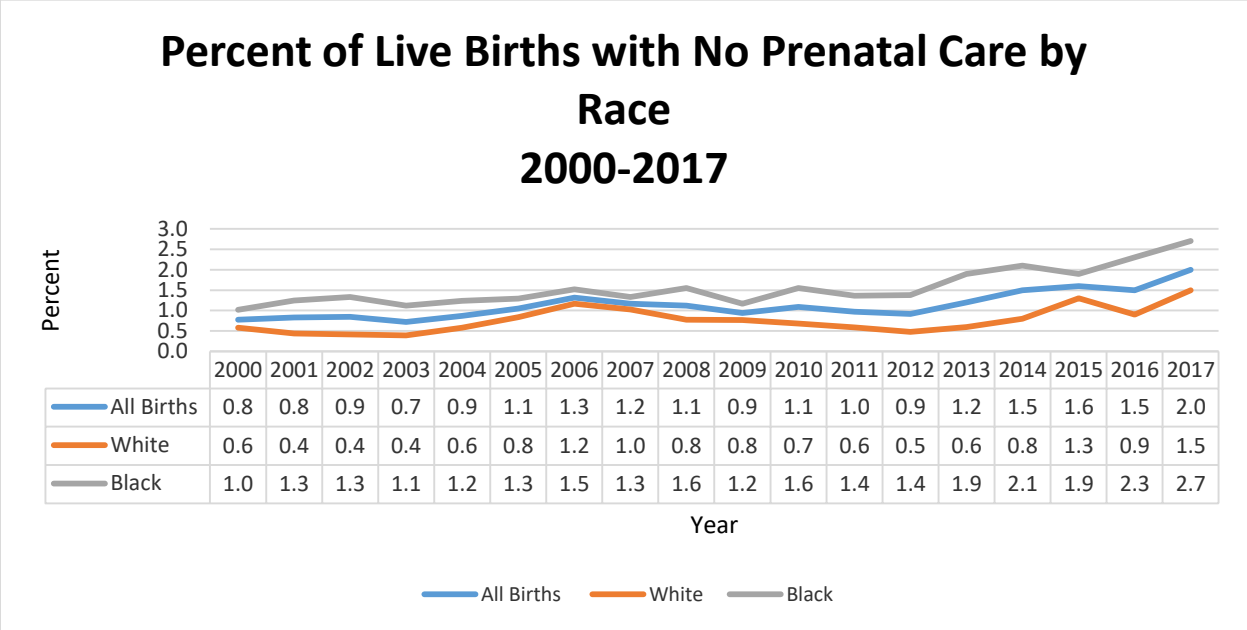
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
All Births	76.2	77.8	80.2	81.8	82.4	80.1	81.3	80.9	80.3	78.9	78.2	76.0	81.5	81.5	73.1	75.1	72.6	71.4
White	80.1	83.6	85.9	85.2	85.7	83.0	84.3	84.1	84.6	83.4	84.0	81.2	85.0	84.9	78.2	80.0	77.5	74.8
Black	71.8	72.0	74.2	78.0	78.9	77.5	78.1	77.5	75.7	73.9	72.0	70.7	77.7	77.7	68.0	70.0	67.4	67.6



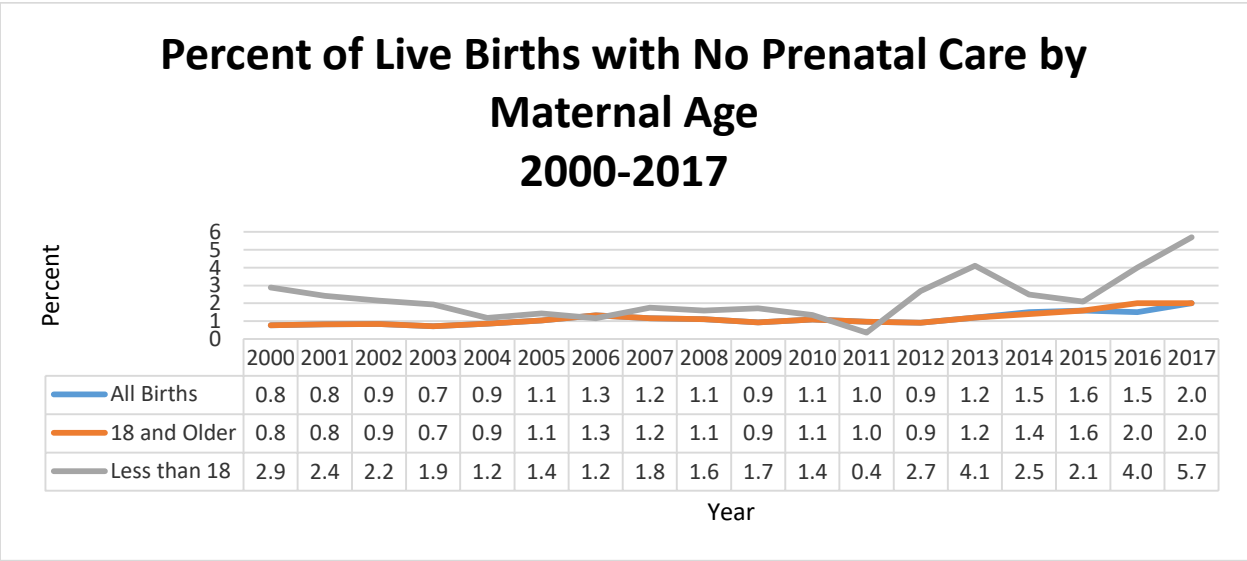
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
All Births	76.2	77.8	80.2	81.8	82.4	80.1	81.3	80.9	80.3	78.9	78.2	76.0	81.5	81.5	73.1	75.1	72.6	71.4
18 and Older	77.0	78.8	80.9	82.5	83.0	80.5	81.9	81.4	81.1	79.7	78.9	76.6	81.9	79.9	73.5	75.6	73.1	71.7
Less than 18	62.8	59.3	66.1	68.7	69.9	69.7	68.7	67.5	59.2	60.1	57.8	56.8	66.0	66.2	53.1	53.5	52	47.5

No Prenatal Care

Prenatal care is important in a healthy and safe pregnancy and delivery. Without prenatal care, risk factors contributing to maternal and infant morbidity and mortality may not be identified and increase the risk of maternal and infant complications from the pregnancy. Jefferson County experienced an increase in the percent of women not receiving prenatal care since 2000. The number of pregnant women receiving no prenatal care is very small; however, increasing a small amount in the number of pregnant women who did not receive prenatal care results in a large percent change. The black sub-population has a number of women who did not receive prenatal care, as did the sub-population under age 18. In 2017, pregnant women receiving no prenatal care spiked at approximately 1.5% of all live births, and among women less than 18 years of age, the rate spiked at 5.7% of live births. The increase in women with no prenatal care was a statistically significant increase from the 2012 data used in the previous assessment.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
All Births	0.8	0.8	0.9	0.7	0.9	1.1	1.3	1.2	1.1	0.9	1.1	1.0	0.9	1.2	1.5	1.6	1.5	2.0
White	0.6	0.4	0.4	0.4	0.6	0.8	1.2	1.0	0.8	0.8	0.7	0.6	0.5	0.6	0.8	1.3	0.9	1.5
Black	1.0	1.3	1.3	1.1	1.2	1.3	1.5	1.3	1.6	1.2	1.6	1.4	1.4	1.9	2.1	1.9	2.3	2.7

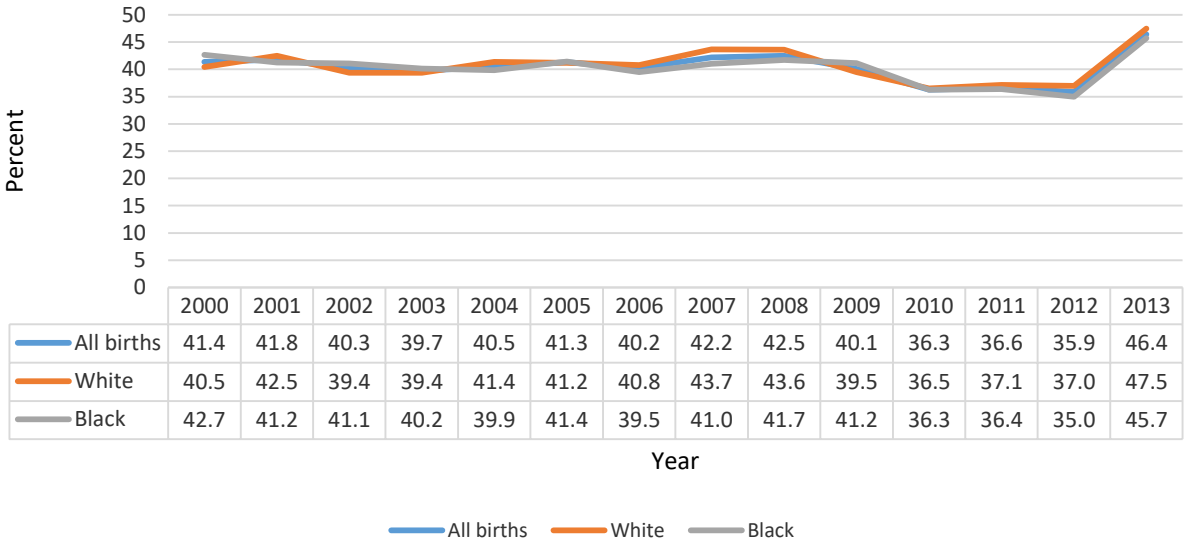


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
All Births	0.8	0.8	0.9	0.7	0.9	1.1	1.3	1.2	1.1	0.9	1.1	1.0	0.9	1.2	1.5	1.6	1.5	2.0
18 and Older	0.8	0.8	0.9	0.7	0.9	1.1	1.3	1.2	1.1	0.9	1.1	1.0	0.9	1.2	1.4	1.6	2.0	2.0
Less than 18	2.9	2.4	2.2	1.9	1.2	1.4	1.2	1.8	1.6	1.7	1.4	0.4	2.7	4.1	2.5	2.1	4.0	5.7

Short Interconceptional Interval

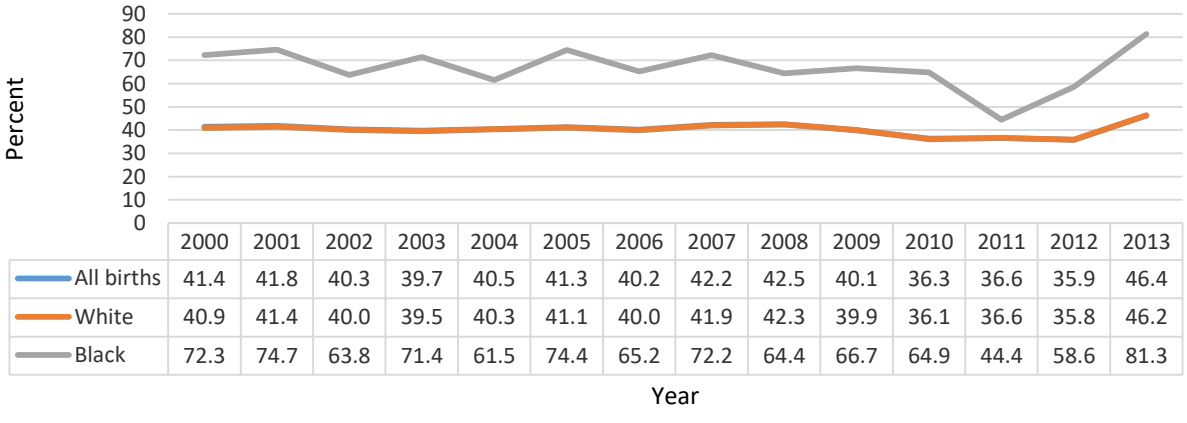
A short interconceptional interval is defined as a time period of less than two years between a woman's last delivery and current pregnancy conception. A woman with a multigravid pregnancy is one in which the woman has had more than one pregnancy. The percent of women with a short interconceptional interval decreased during 2000-2012 but increased in 2013. The short inteconceptional interval rate is higher among multigravida women less than age 18.

Percent of Multigravid Pregnancies with a Short Interconceptional Interval 2000-2013



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
All births	41.4	41.8	40.3	39.7	40.5	41.3	40.2	42.2	42.5	40.1	36.3	36.6	35.9	46.4
White	40.5	42.5	39.4	39.4	41.4	41.2	40.8	43.7	43.6	39.5	36.5	37.1	37.0	47.5
Black	42.7	41.2	41.1	40.2	39.9	41.4	39.5	41.0	41.7	41.2	36.3	36.4	35.0	45.7

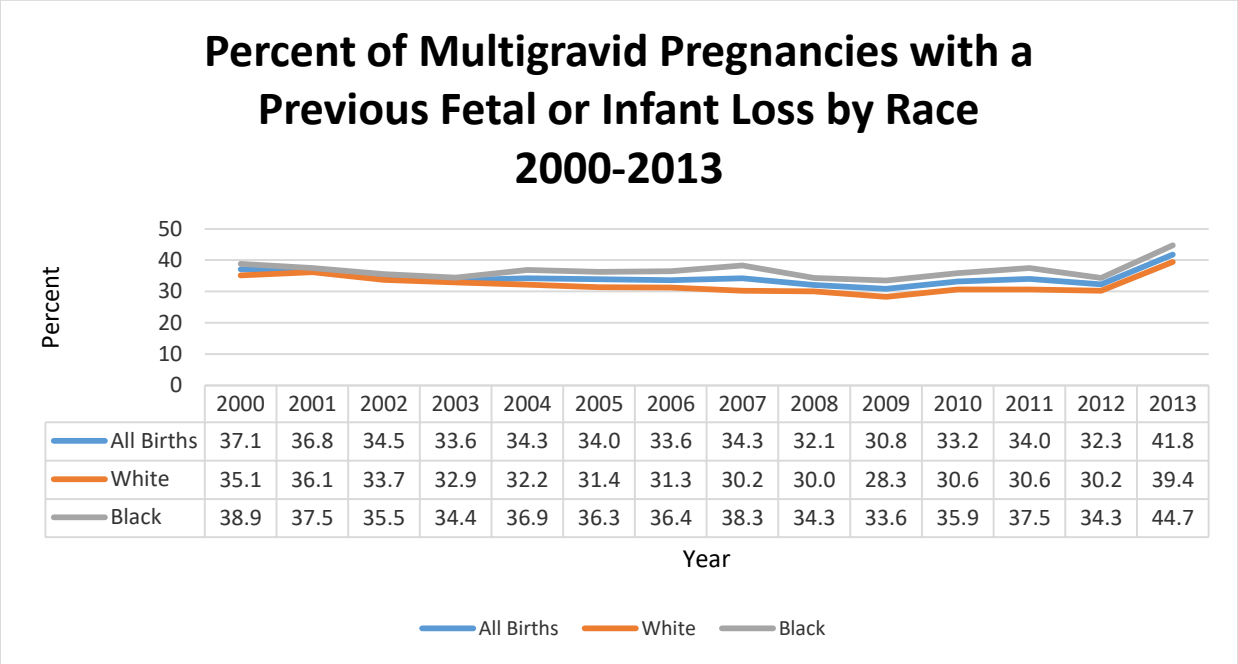
Percent of Multigravid Pregnancies with a Short Interconceptional Interval by Maternal Age 2000-2013



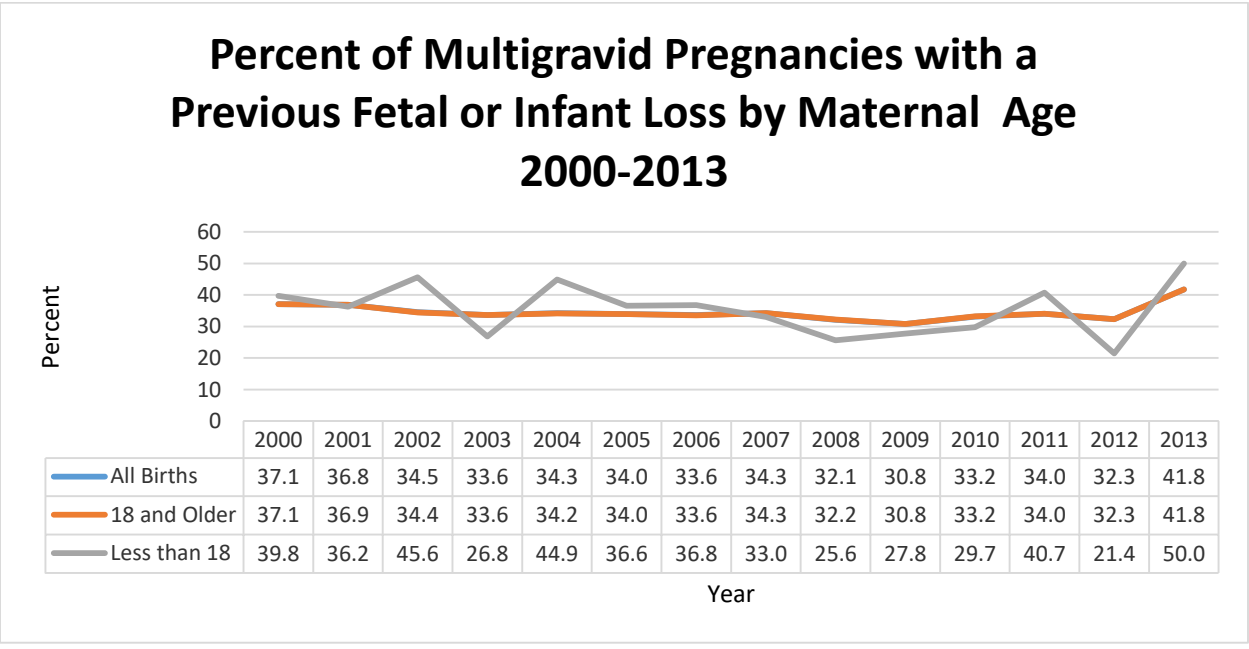
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
All births	41.4	41.8	40.3	39.7	40.5	41.3	40.2	42.2	42.5	40.1	36.3	36.6	35.9	46.4
White	40.9	41.4	40.0	39.5	40.3	41.1	40.0	41.9	42.3	39.9	36.1	36.6	35.8	46.2
Black	72.3	74.7	63.8	71.4	61.5	74.4	65.2	72.2	64.4	66.7	64.9	44.4	58.6	81.3

Previous Loss (Fetal or Infant)

This indicator is the percent of pregnancies in which the mother has had a fetal or infant loss prior to the current pregnancy. The rate of previous loss for pregnancies declined from 2000 to 2012 and increased in 2013. The rate is higher among women less than 18 years of age.



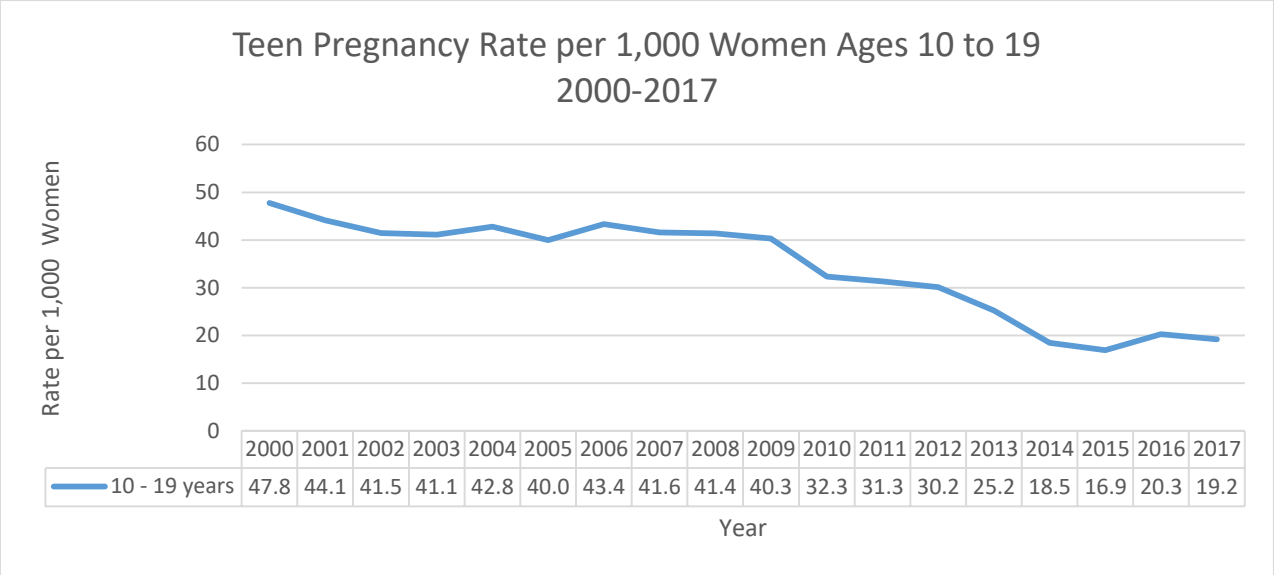
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
All Births	37.1	36.8	34.5	33.6	34.3	34.0	33.6	34.3	32.1	30.8	33.2	34.0	32.3	41.8
White	35.1	36.1	33.7	32.9	32.2	31.4	31.3	30.2	30.0	28.3	30.6	30.6	30.2	39.4
Black	38.9	37.5	35.5	34.4	36.9	36.3	36.4	38.3	34.3	33.6	35.9	37.5	34.3	44.7



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
All Births	37.1	36.8	34.5	33.6	34.3	34.0	33.6	34.3	32.1	30.8	33.2	34.0	32.3	41.8
18 and Older	37.1	36.9	34.4	33.6	34.2	34.0	33.6	34.3	32.2	30.8	33.2	34.0	32.3	41.8
Less than 18	39.8	36.2	45.6	26.8	44.9	36.6	36.8	33.0	25.6	27.8	29.7	40.7	21.4	50.0

Teen Pregnancy Rates

The teen pregnancy rate is calculated as the rate of teen pregnancies per 1,000 women between the ages of 10 and 19. This rate includes live births to teens, as well as induced terminations of a pregnancy and fetal losses. The overall teen pregnancy rate for Jefferson County has remained decreased in 2017 as compared to 2000, with a statistically significant decrease since 2012 when the last Community Health Assessment was completed.

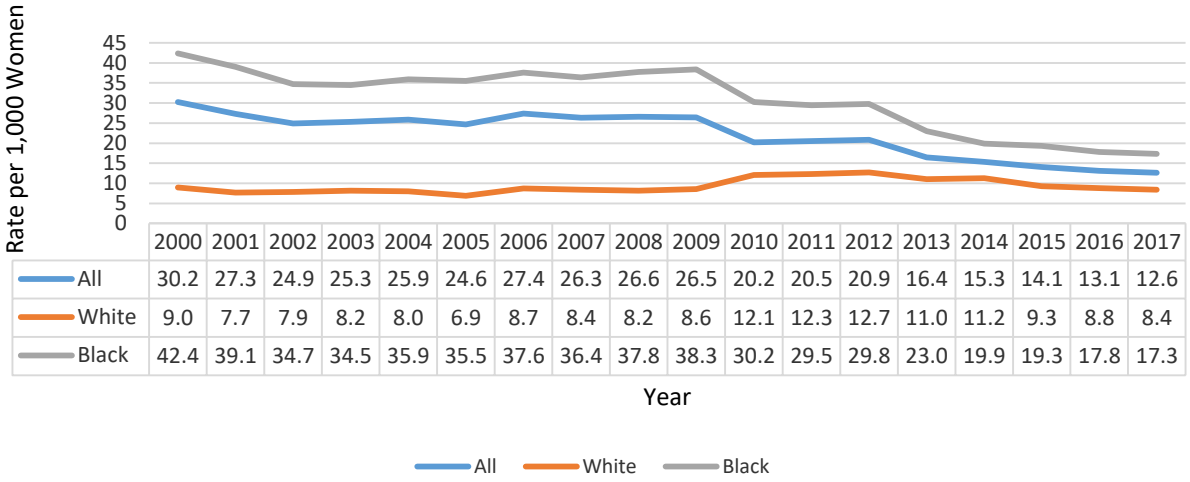


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
10 - 19 years	47.8	44.1	41.5	41.1	42.8	40.0	43.4	41.6	41.4	40.3	32.3	31.3	30.2	25.2	18.5	16.9	20.3	19.2

Teen Fertility Rate

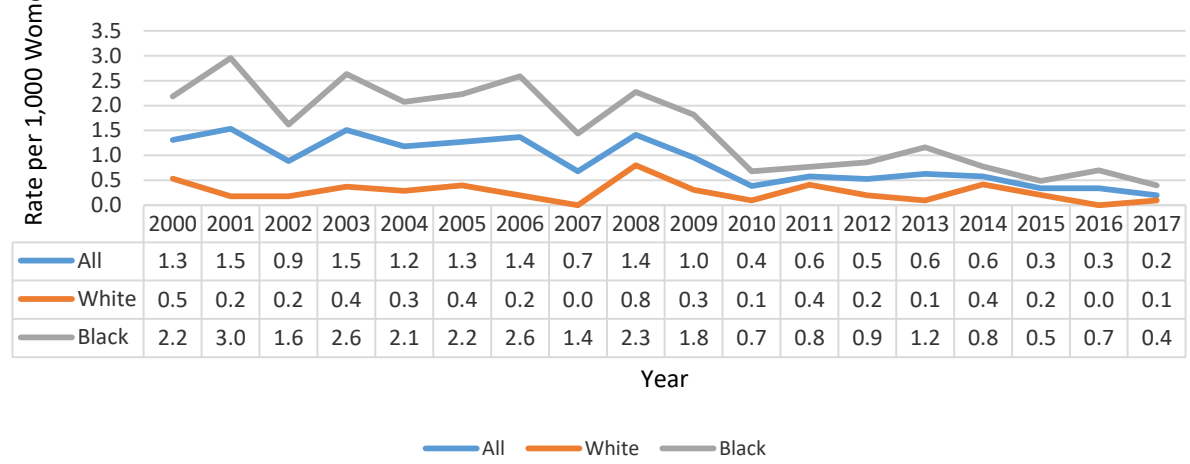
The teen fertility rate is the rate of live births to the population ages 10 through 19 years. The teen fertility rate has statistically significantly decreased from a rate of 30.2 live births per 1,000 women ages 10 to 19 years since 2000 to 12.6 live births per 1,000 women ages 10 to 19 years in Jefferson County.

Teen Fertility Rate: Live Births per 1,000 Women Ages 10 to 19 2000-2017

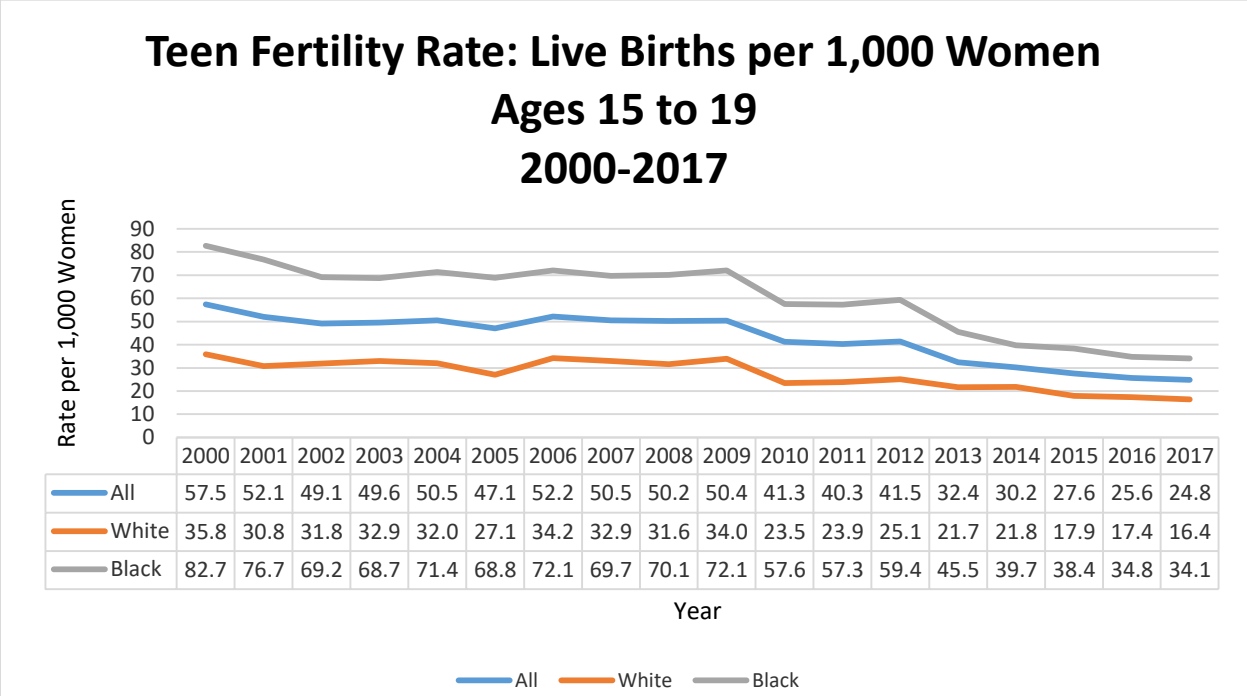


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
All	30.2	27.3	24.9	25.3	25.9	24.6	27.4	26.3	26.6	26.5	20.2	20.5	20.9	16.4	15.3	14.1	13.1	12.6
White	9.0	7.7	7.9	8.2	8.0	6.9	8.7	8.4	8.2	8.6	12.1	12.3	12.7	11.0	11.2	9.3	8.8	8.4
Black	42.4	39.1	34.7	34.5	35.9	35.5	37.6	36.4	37.8	38.3	30.2	29.5	29.8	23.0	19.9	19.3	17.8	17.3

Teen Fertility Rate: Live Births per 1,000 Women Ages 10 to 14 2000-2017



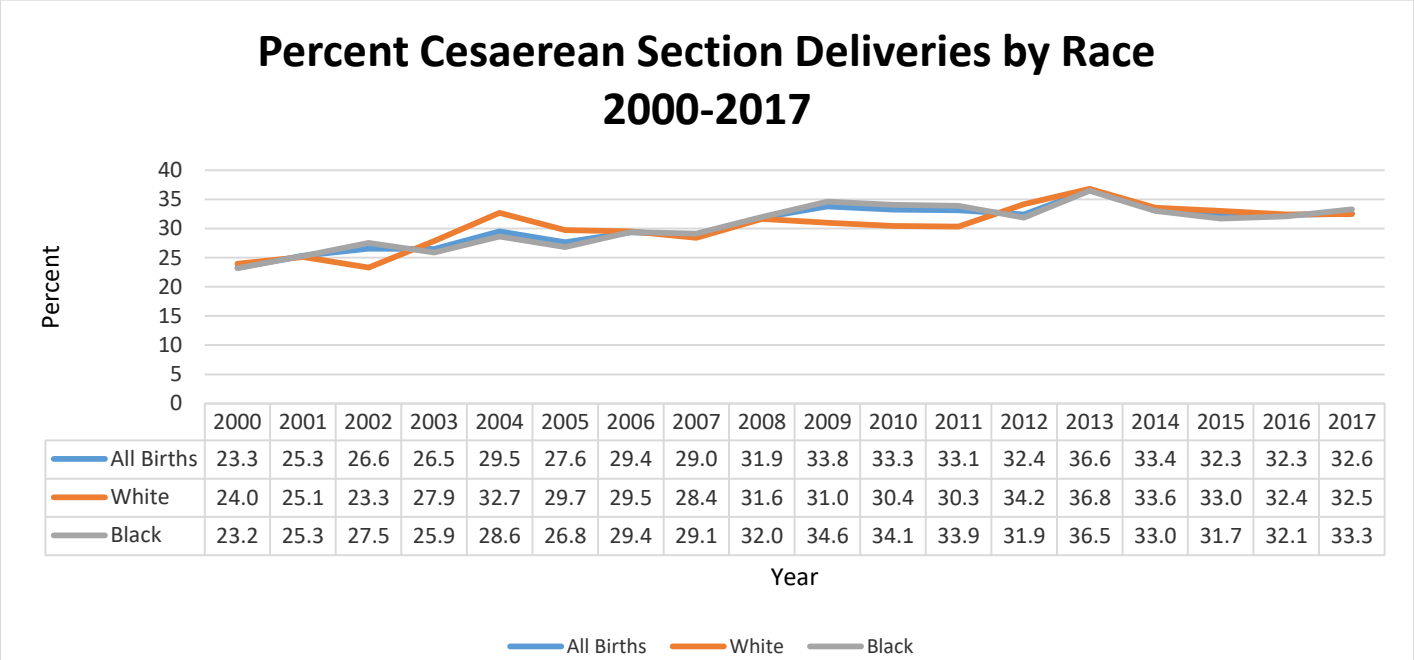
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
All	1.3	1.5	0.9	1.5	1.2	1.3	1.4	0.7	1.4	1.0	0.4	0.6	0.5	0.6	0.6	0.3	0.3	0.2
White	0.5	0.2	0.2	0.4	0.3	0.4	0.2	0.0	0.8	0.3	0.1	0.4	0.2	0.1	0.4	0.2	0.0	0.1
Black	2.2	3.0	1.6	2.6	2.1	2.2	2.6	1.4	2.3	1.8	0.7	0.8	0.9	1.2	0.8	0.5	0.7	0.4



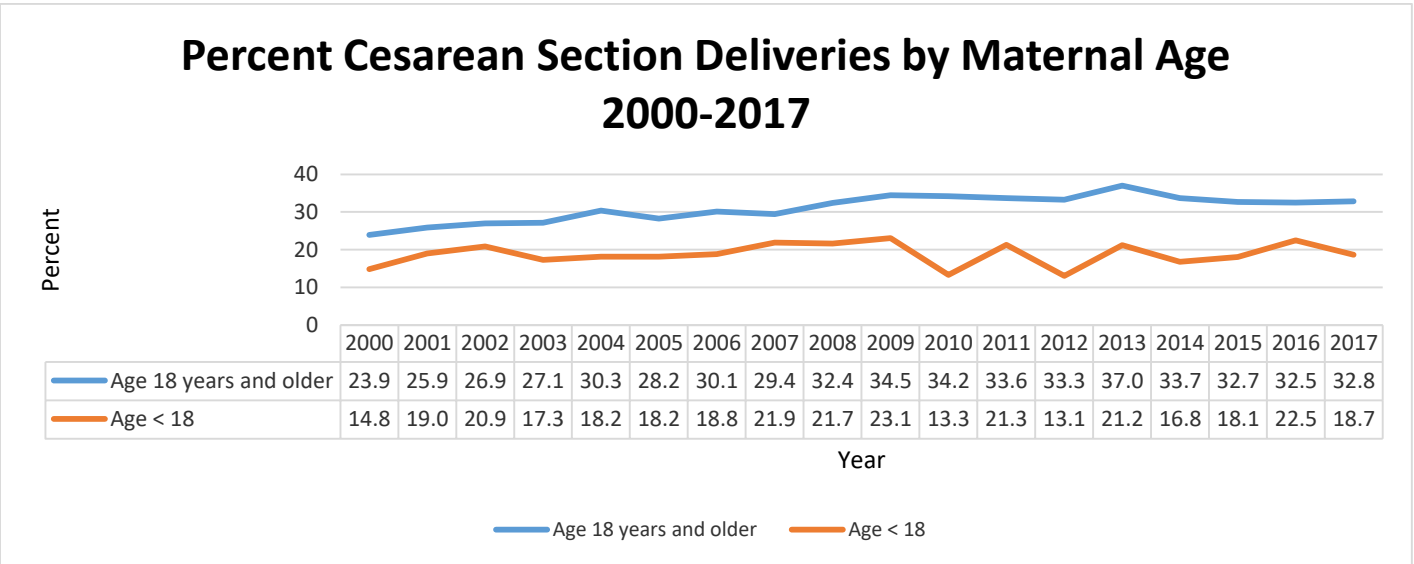
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
All	57.5	52.1	49.1	49.6	50.5	47.1	52.2	50.5	50.2	50.4	41.3	40.3	41.5	32.4	30.2	27.6	25.6	24.8
White	35.8	30.8	31.8	32.9	32.0	27.1	34.2	32.9	31.6	34.0	23.5	23.9	25.1	21.7	21.8	17.9	17.4	16.4
Black	82.7	76.7	69.2	68.7	71.4	68.8	72.1	69.7	70.1	72.1	57.6	57.3	59.4	45.5	39.7	38.4	34.8	34.1

Cesarean Section Deliveries

Cesarean Section is a medical intervention that can reduce maternal or infant death during obstructed labor, and when other medical indications of a complex delivery are present. Cesarean Section deliveries, however, can also result in adverse maternal and infant complications whose impact may be avoided when the Cesarean Section delivery is not indicated. An increasing Caesarean Section delivery rate may indicate an increase in risky deliveries or an increased rate for non-indicated Cesarean Section deliveries. The rate of Caesarean Section deliveries in Jefferson County has increased by 39.9% since 2000 to represent 32.6% of the total deliveries in 2017. The increased rate of Caesarean Section deliveries in women under the age of 18 years between 2012 and 2017 was not statistically significant.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
All Births	23.3	25.3	26.6	26.5	29.5	27.6	29.4	29.0	31.9	33.8	33.3	33.1	32.4	36.6	33.4	32.3	32.3	32.6
White	24.0	25.1	23.3	27.9	32.7	29.7	29.5	28.4	31.6	31.0	30.4	30.3	34.2	36.8	33.6	33.0	32.4	32.5
Black	23.2	25.3	27.5	25.9	28.6	26.8	29.4	29.1	32.0	34.6	34.1	33.9	31.9	36.5	33.0	31.7	32.1	33.3

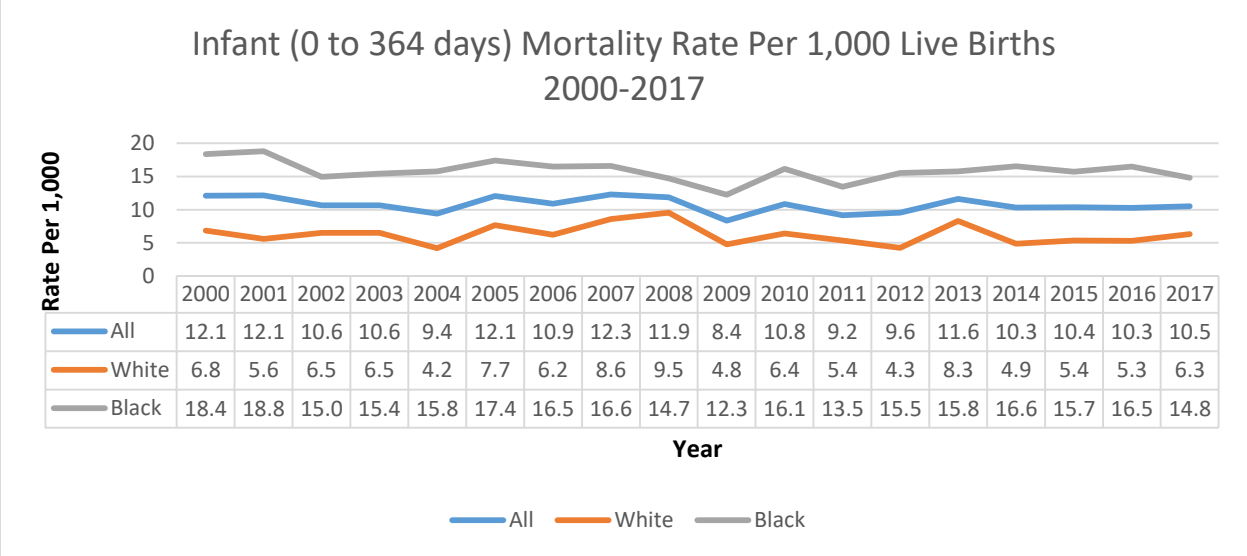


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Age 18 years and older	23.9	25.9	26.9	27.1	30.3	28.2	30.1	29.4	32.4	34.5	34.2	33.6	33.3	37.0	33.7	32.7	32.5	32.8
Age < 18	14.8	19.0	20.9	17.3	18.2	18.2	18.8	21.9	21.7	23.1	13.3	21.3	13.1	21.2	16.8	18.1	22.5	18.7

Infant Mortality

The infant mortality rate is a critical indicator of community health. Infant mortality is defined as the death of an infant between live birth and 364 days of after birth. There are two methods for calculating an infant mortality rate. The most common infant mortality calculation is established by taking the

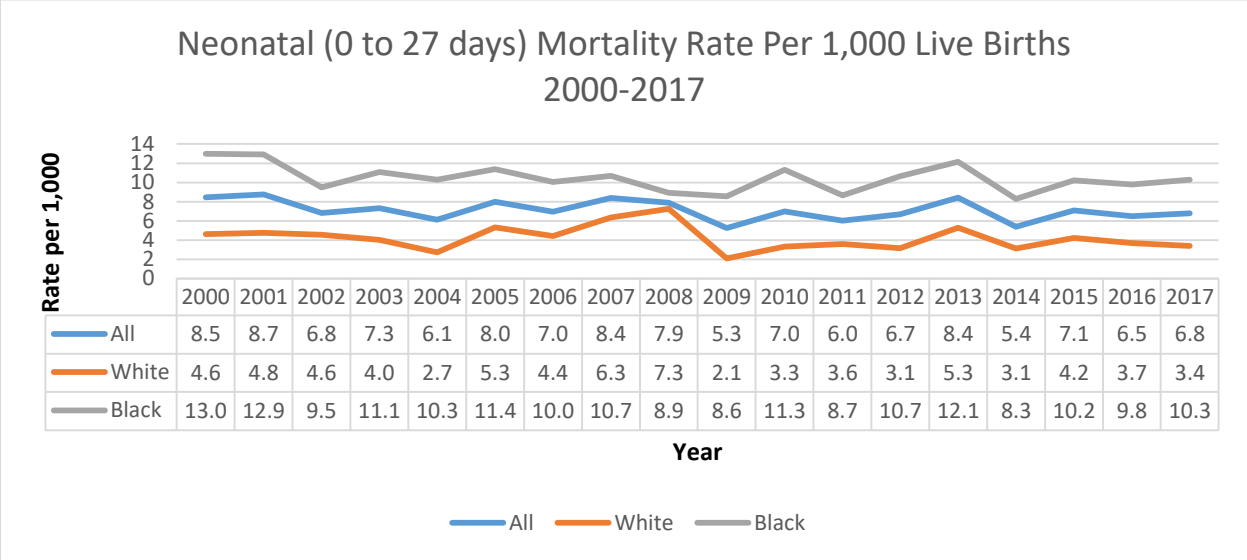
number of infant deaths occurring in a given year and dividing that number by the total number of live births during the same year; however, this method does not take into consideration the year in which the deceased infant was actually born. An infant born in 2013 may die in 2014 and have experienced mortality within his or her first year of life. The more accurate method of calculating infant mortality is to use the birth cohort which links the infant death record with the birth record for that infant. This method provides a more accurate representation of the actual mortality experience of a group of infants born within a particular year. The overall infant mortality rate for Jefferson County has decreased slightly from 12.1 deaths per 1,000 live births in 2000 to 10.5 deaths per 1,000 live births in 2017. This trend is seen in the white and black sub-populations; however, the 2017 infant mortality rate of 14.8 deaths per 1,000 live births in the black sub-population was 134.9% higher than the infant mortality rate of 6.3 deaths per 1,000 live births in the white sub-population. This disparity in rates by race is statistically significant. Jefferson County's infant mortality rate remains substantially higher than the 2016 US infant mortality rate of 5.87 deaths per 1,000 live births and is higher than the Healthy People 2020 goal of 6.6 infant deaths per 1,000 live births.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
All	12.1	12.1	10.6	10.6	9.4	12.1	10.9	12.3	11.9	8.4	10.8	9.2	9.6	11.6	10.3	10.4	10.3	10.5
White	6.8	5.6	6.5	6.5	4.2	7.7	6.2	8.6	9.5	4.8	6.4	5.4	4.3	8.3	4.9	5.4	5.3	6.3
Black	18.4	18.8	15.0	15.4	15.8	17.4	16.5	16.6	14.7	12.3	16.1	13.5	15.5	15.8	16.6	15.7	16.5	14.8

Neonatal Mortality

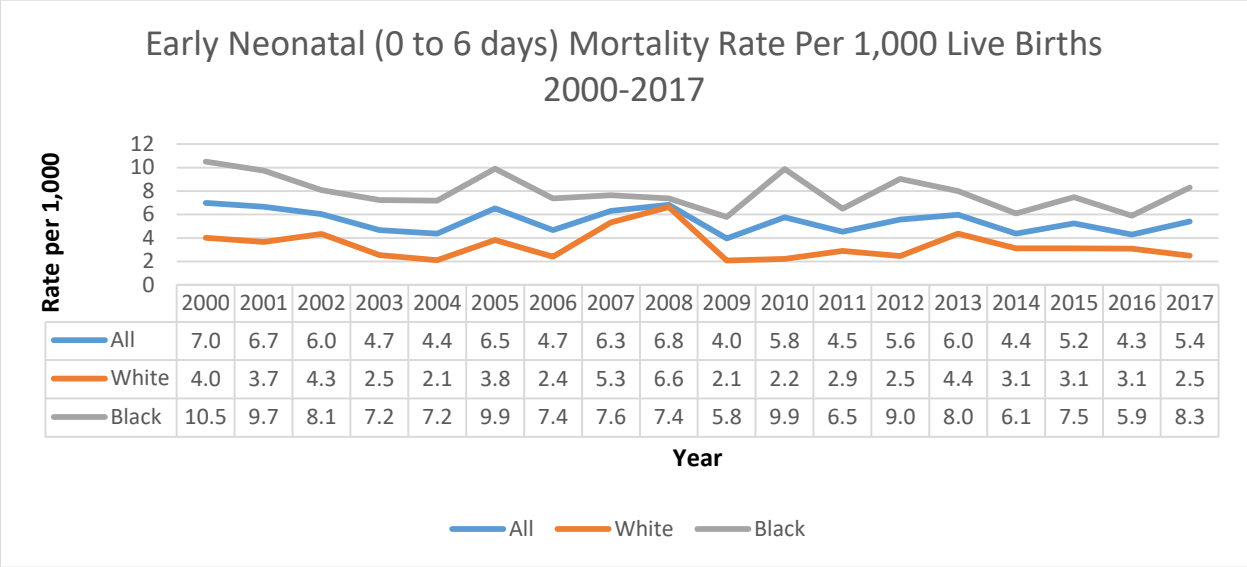
Neonatal mortality is an infant death that occurs from live birth to 27 days following the live birth. Most infant deaths occur during the neonatal period. Neonatal infant mortality rates have decreased since 2000 among the white and black sub-populations within Jefferson County. The Healthy People 2020 neonatal mortality goal is 4.1 or fewer neonatal deaths per 1,000 live births; the Jefferson County rate is 6.8 neonatal deaths per 1,000 live births.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
All	8.5	8.7	6.8	7.3	6.1	8.0	7.0	8.4	7.9	5.3	7.0	6.0	6.7	8.4	5.4	7.1	6.5	6.8
White	4.6	4.8	4.6	4.0	2.7	5.3	4.4	6.3	7.3	2.1	3.3	3.6	3.1	5.3	3.1	4.2	3.7	3.4
Black	13.0	12.9	9.5	11.1	10.3	11.4	10.0	10.7	8.9	8.6	11.3	8.7	10.7	12.1	8.3	10.2	9.8	10.3

Early Neonatal Infant Mortality

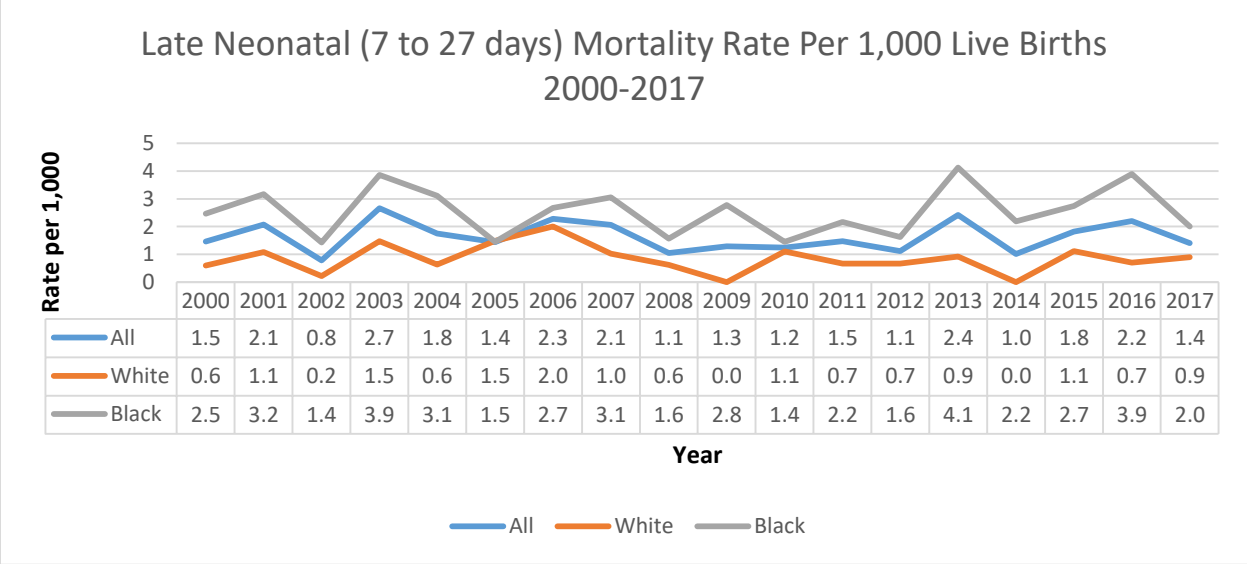
Early neonatal infant mortality is infant death occurring between live birth and six days after live birth. Early neonatal mortality makes up the majority of neonatal infant deaths. Early neonatal mortality rates have decreased for both the white and black sub-populations since 2000; however in 2017, the overall early neonatal mortality rate and this rate among the black sub-population decreased slightly from the 2012 rate of nine infant deaths per 1,000 live births.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
All	7.0	6.7	6.0	4.7	4.4	6.5	4.7	6.3	6.8	4.0	5.8	4.5	5.6	6.0	4.4	5.2	4.3	5.4
White	4.0	3.7	4.3	2.5	2.1	3.8	2.4	5.3	6.6	2.1	2.2	2.9	2.5	4.4	3.1	3.1	3.1	2.5
Black	10.5	9.7	8.1	7.2	7.2	9.9	7.4	7.6	7.4	5.8	9.9	6.5	9.0	8.0	6.1	7.5	5.9	8.3

Late Neonatal Infant Mortality

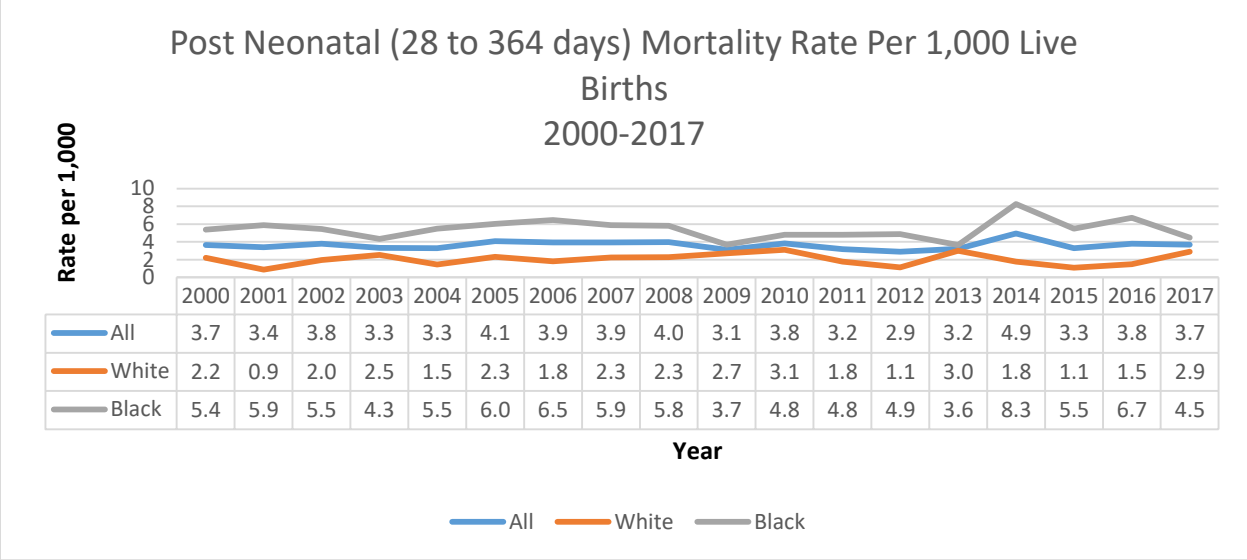
Late neonatal infant mortality is infant death that occurs between seven and 27 days following live birth. Late neonatal mortality rates fluctuate in Jefferson County, but generally are higher in the black sub-population.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
All	1.5	2.1	0.8	2.7	1.8	1.4	2.3	2.1	1.1	1.3	1.2	1.5	1.1	2.4	1.0	1.8	2.2	1.4
White	0.6	1.1	0.2	1.5	0.6	1.5	2.0	1.0	0.6	0.0	1.1	0.7	0.7	0.9	0.0	1.1	0.7	0.9
Black	2.5	3.2	1.4	3.9	3.1	1.5	2.7	3.1	1.6	2.8	1.4	2.2	1.6	4.1	2.2	2.7	3.9	2.0

Post-neonatal Mortality

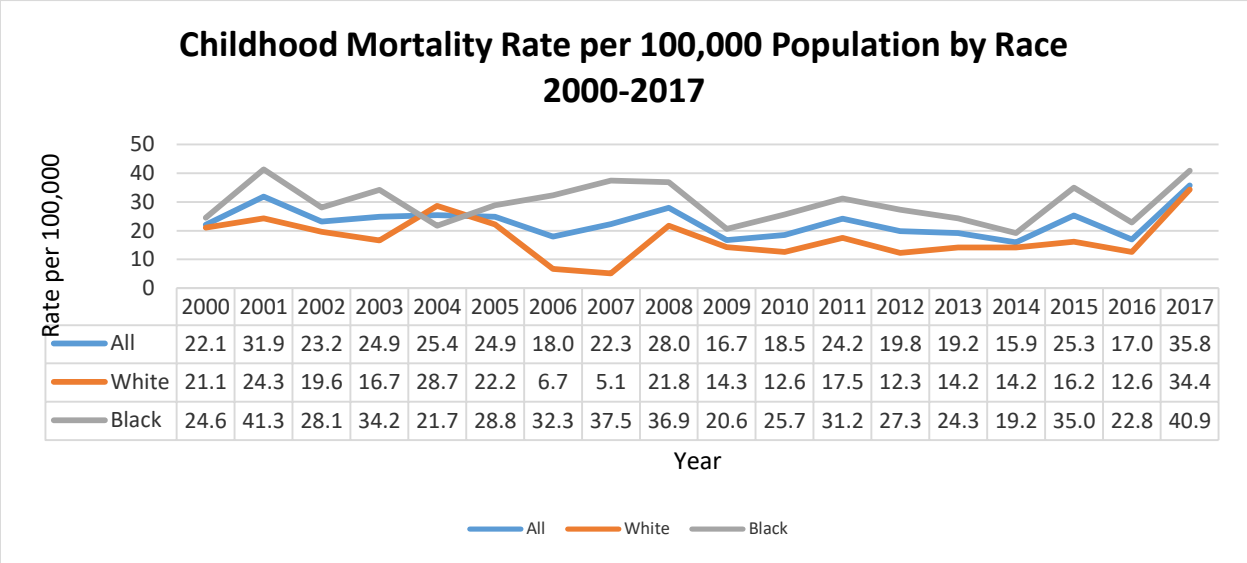
Post-neonatal mortality is infant death occurring between 28 and 364 days after live birth. Post-neonatal infant mortality rates increased among the black sub-population and white sub-populations.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
All	3.7	3.4	3.8	3.3	3.3	4.1	3.9	3.9	4.0	3.1	3.8	3.2	2.9	3.2	4.9	3.3	3.8	3.7
White	2.2	0.9	2.0	2.5	1.5	2.3	1.8	2.3	2.3	2.7	3.1	1.8	1.1	3.0	1.8	1.1	1.5	2.9
Black	5.4	5.9	5.5	4.3	5.5	6.0	6.5	5.9	5.8	3.7	4.8	4.8	4.9	3.6	8.3	5.5	6.7	4.5

Childhood Mortality

Childhood mortality is defined as the death of a child between one and fourteen years of age. This measure is an important indicator of early death in a population. Jefferson County childhood mortality rates have increased by 62.9% from the 2000 rate of 22.1 per 100,000 population to the 2017 rate of 35.8 per 100,000 population. Notably, the child mortality rate in 2017 has increased overall and in both the white and black sub-populations.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
All	22.1	31.9	23.2	24.9	25.4	24.9	18.0	22.3	28.0	16.7	18.5	24.2	19.8	19.2	15.9	25.3	17.0	35.8
White	21.1	24.3	19.6	16.7	28.7	22.2	6.7	5.1	21.8	14.3	12.6	17.5	12.3	14.2	14.2	16.2	12.6	34.4
Black	24.6	41.3	28.1	34.2	21.7	28.8	32.3	37.5	36.9	20.6	25.7	31.2	27.3	24.3	19.2	35.0	22.8	40.9

Maternal and Child Health Findings

There is desirable change among some of Jefferson County's maternal and child health indicators which demonstrate areas of improved maternal and child health. The rate of preterm births, the rate of smoking during pregnancy, and infant mortality rate have decreased since 2000. Among teenagers, pregnancy in women between the ages of 10 and 19, overall pregnancy outcomes and birth outcomes are indicating improvement as well. The teen pregnancy rate in 2017 decreased statistically significantly as compared to the 2012 teen pregnancy rate, as has the overall rate of teen smoking during pregnancy, and the percent of very low birth weight infants born to teens. These indicators demonstrate that Jefferson County women exceed the national averages in the percentage of women who abstain from smoking during pregnancy and in percentage of preterm deliveries, both of which improve the health outcomes for the mother and infant.

Despite improvements in outcomes such as infant mortality and preterm births over time, Jefferson County continues to fall behind the national goals and averages for these birth outcomes. The statistically significant gap between infant mortality in the black and white populations and in other maternal and child health indicators demonstrates health disparities that need to be addressed to

improve maternal and child health in Jefferson County. Jefferson County continues to lag behind the United States with an infant mortality rate that is much higher than the national infant mortality rate. The decrease in adequate prenatal care received by Jefferson County mothers and the increase in the percent of mothers who receive no prenatal care are alarming trends that need to be addressed.

Rates of very low birth weight have remained static, but Intrauterine Growth Restriction has increased slightly since 2000 in Jefferson County. Rates of Caesarean Section deliveries, especially in women over the age of 18, have continued to increase since 2000. High rates of very low birth weight infants, Intrauterine Growth Restriction and Cesarean Section deliveries represent areas for continued health improvement in Jefferson County.

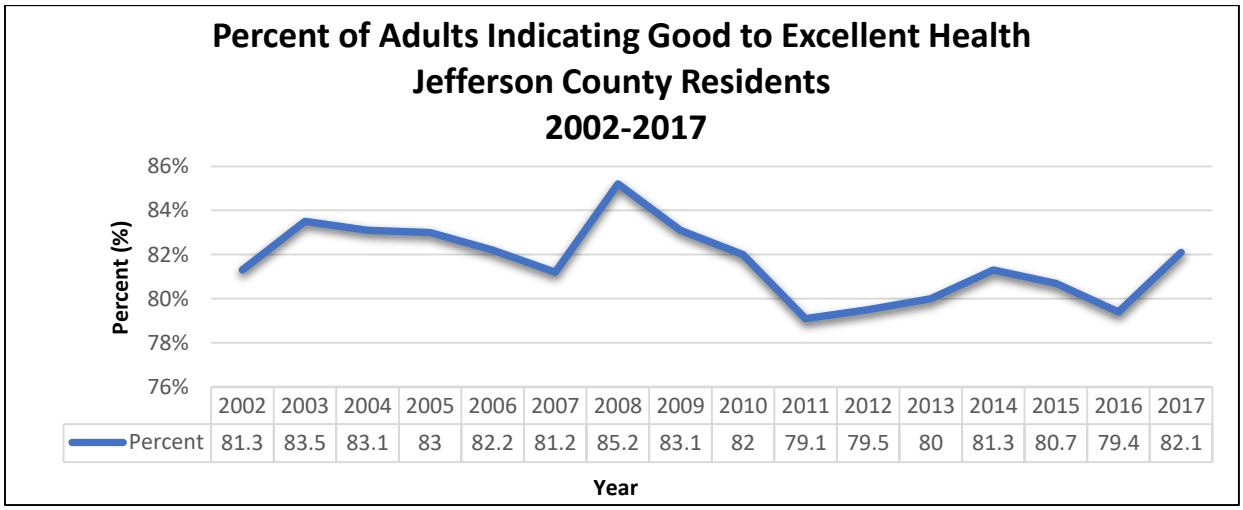
Quality of Life[1,66-71]

Quality of Life indicators include population self-reported categorization of health, number of self-reported poor mental and physical health days, voter registration/turnout, and data on violent crimes. These indicators represent aspects of daily residential life that play a role in overall health and well-being. Quality of Life indicators have significant implications for health-related policies within Jefferson County. Healthy People 2020 included Quality of Life as one of its overarching goals, and one of the Healthy People 2020 four foundation measures. Quality of life indicators are multi-dimensional and assist with promoting health behaviors that not only minimize illness and disease but foster improved health outcomes.

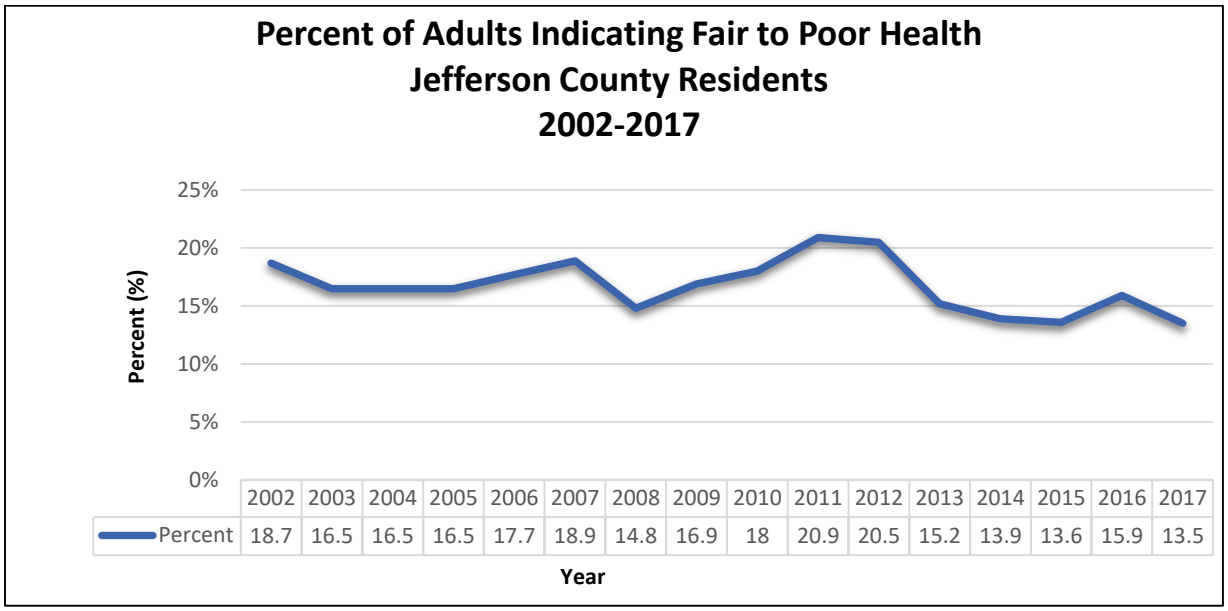
General Health

The Behavioral Risk Factor Surveillance System (BRFSS) asks each telephone respondent to describe his or her general health as excellent, very good, good, fair or poor. In 2011, the BRFSS changed its telephone sampling methodology to include cell phone numbers. Considering this change in methodology, results following 2011 cannot be accurately compared to results prior to the 2011 sampling change.

From 2002 to 2017, the BRFSS results of those indicating that their health rated between excellent and good remained static at an average of 81.6% of survey respondents. During the same years, those indicating fair or poor health remained static at an average of 15.7%. Following the 2011 sampling change, the percent of the population indicating excellent to good health decreased to an average of 80.3% and an average of 16.2% indicated fair or poor health.

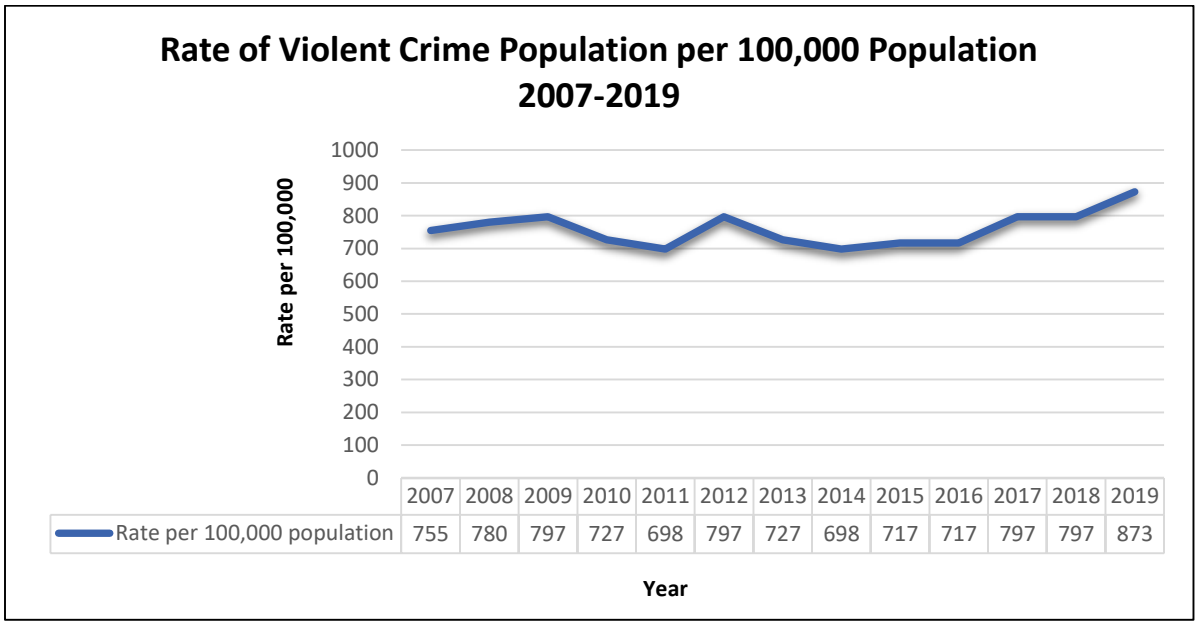


	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Percent	81.3	83.5	83.1	83	82.2	81.2	85.2	83.1	82	79.1	79.5	80	81.3	80.7	79.4	82.1



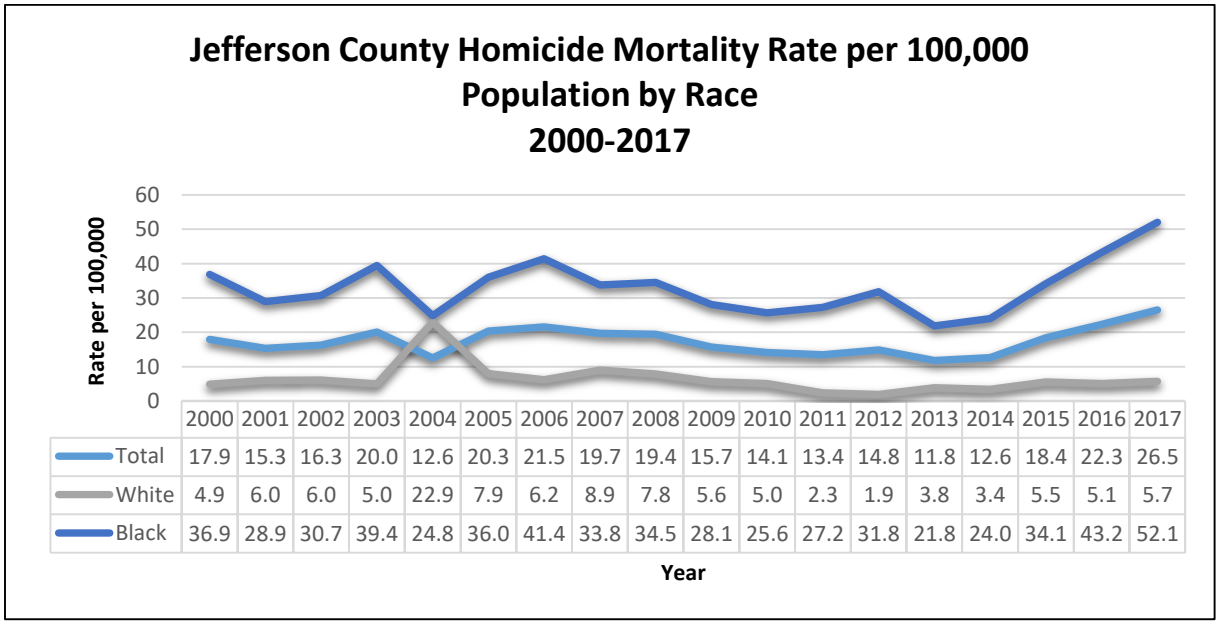
Violent Crime

Violent crime is defined as offenses that involve face-to-face confrontation between the victim and the perpetrator and is represented as a rate per 100,000 population. Crimes included in this rate are homicide, forcible rape, robbery and aggravated assault. The violent crime rate is represented as a two year rolling average, and the rate is reported as the last year. Violent crime exposure impacts the community in various aspects. According to Healthy People 2020, Children and adolescents exposed to violence are at risk for poor long-term behavioral and mental health outcomes regardless of whether they are victims, direct witnesses or hear about crime. The rolling two year violent crime rate decreased from 727 to 698 per 100,000 population for 2013-2014 and has gradually increased since 2015. Jefferson County's 2019 Violent Crime Rate is 873 per 100,000 population; which is higher than the state of Alabama's 2019 violent crime rate of 480 violent crimes per 100,000 population. Addressing violent crime as a public health issue within Jefferson County may help to improve quality of life indicators by reducing violent crime exposure that may ultimately influence the health and well-being of the community and improve life expectancy.



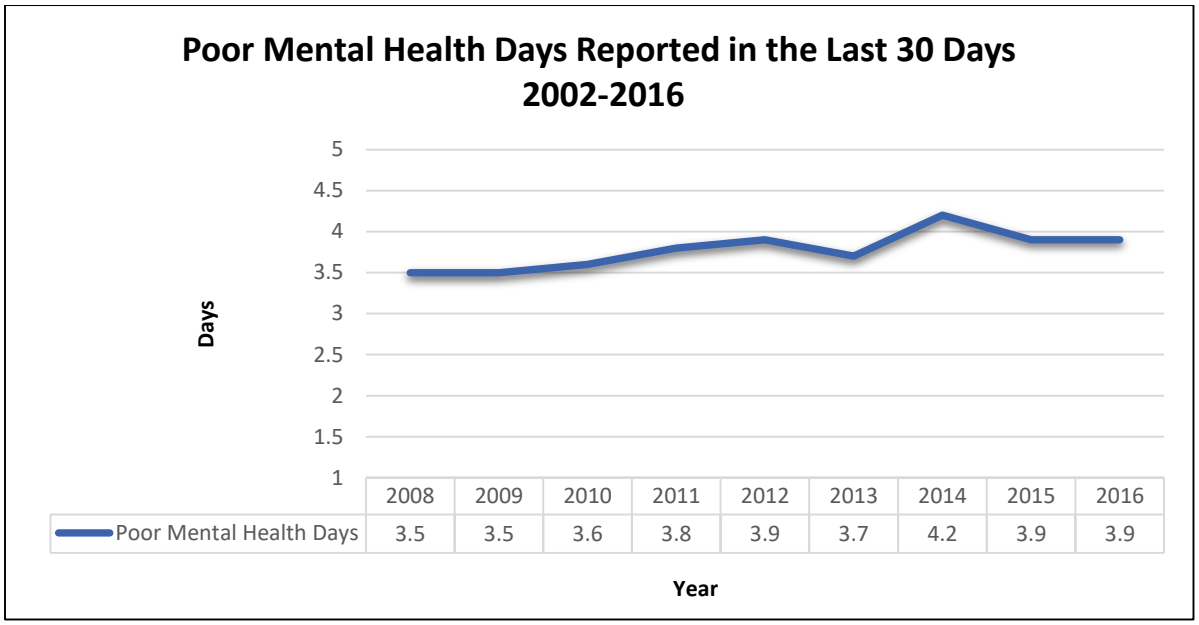
Homicide

Homicide rates increased in Jefferson County by 16.8% from 14.8 per 100,000 population in 2012 to 26.5 per 100,000 population in 2017. Although statistically significantly higher in the overall population and among the black sub-population, an increased homicide rate was also noted in the white sub-populations of Jefferson County between 2012 and 2017.



Poor Mental Health Days

This measure represents the age-adjusted average number of mentally unhealthy days reported by BRFSS respondents during the 30 days prior to the survey. An increase in the mean number of poor mental health days has been reported since 2008; however, this increase is not statistically significant. This data is reported as the last year of a six year rolling average.



Voter Registration and Turnout

Voter registration and turnout for elections represents Jefferson County's residents' level of engagement in the local, state and national political process.

Local Elections:

Data for the table below represents the primary run-off election held on July 15, 2014 and Jefferson County primary run-off election held on November 6, 2018. Data from other local elections are not provided due to difficulties in combining data from the variety of local municipalities and differing local items considered by each municipality.

	Registered Voters	Number Voted	Percent Voted
Primary Run-off Election- July 15, 2014	425,580	58,532	13.8%
Primary Run-off Election –July 17, 2018	479,959	258,920	53.9%

State-wide Elections:

State-wide elections held every four years, include elections for state-wide representatives and statewide issues. While the percent of registered voters increased during state-wide election years, the percentage of registered voters that actually voted in the election fluctuated.

Year	Eligible to Vote	Registered to Vote	Percent Registered	Number Voted	Percent Voted
2002	497,029	343,861	69.2%	216,211	62.9%
2006	499,219	356,242	71.4%	180,792	50.7%
2010	503,804	380,260	75.5%	213,704	56.2%
2014	507,954	411,086	81.0 %	Not available	Not available
2018	Not available	479,959	Not available	258,920	54.0%

National Elections:

National elections, held every four years, include presidential elections. The percent of registered voters has fluctuated during election years; however, the percent of registered voters who voted increased between 2004 and 2012, but declined in 2016.

Year	Eligible to Vote	Registered to Vote	Percent Registered	Number Voted	Percent Voted
2004	497,763	385,386	77.4%	293,355	76.1%
2008	500,578	414,002	82.7%	318,968	77%
2012	504,877	385,364	76.3%	305,014	79.1%
2016	508,102	456,841	89.9%	305,851	66.9%

Quality of Life Findings

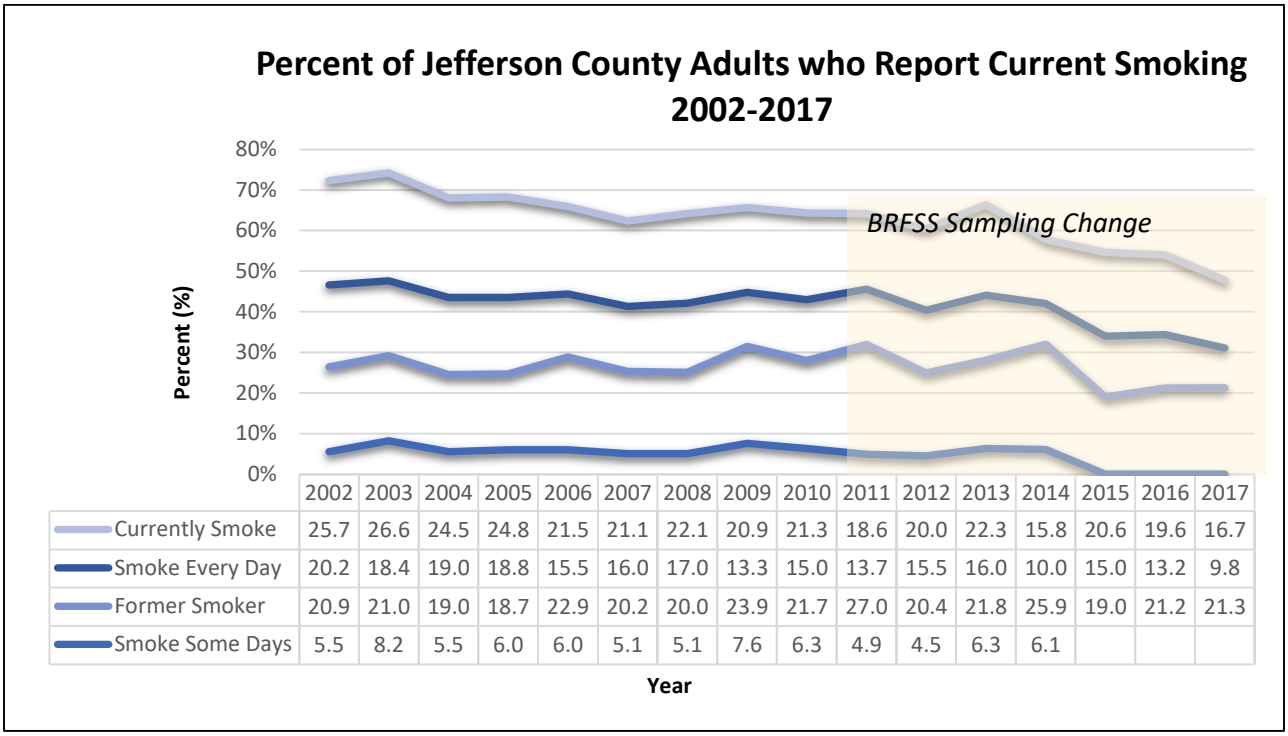
Healthy People 2020 identified improving quality of life as a core public health goal. Quality of Life trending among the quality of life indicators is difficult to determine. The percent of the population reporting less than good health has decreased. Poor physical and mental health days have increased, but these increases are not statistically significant. Rates of Violent Crime per 100,000 population have gradually increased across a five year timespan. While voter registration and turnout trends have fluctuated by election year, it appears that more voters are registering during state election years and more voters are voting during national election years, with the exception of 2016.

Behavioral Risk Factors[1,66-71]

Behavioral risk factors represent individual behaviors that play a role in determining an individual's health status. Measures included in this category are tobacco use, alcohol use, exercise, overweight, obesity, seatbelt use and depression.

Smoking

The percent of the Jefferson County adult population reporting current smoking has decreased over time. In 2017, 16.7% of Jefferson County adults reported currently smoking. The US Healthy People 2020 goal is 12% of the adult population reporting current smoking. The "Smoke Some Days" category data for 2015-2017 was suppressed due to a small sample size.

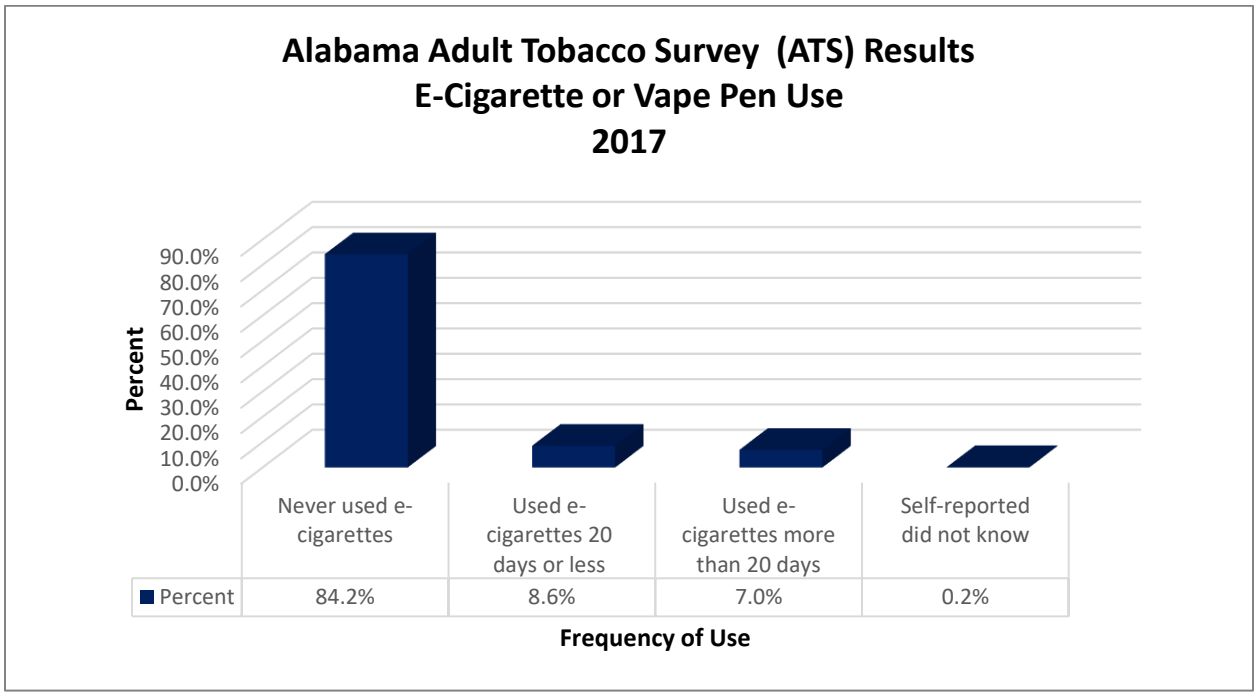


	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Currently Smoke	25.7	26.6	24.5	24.8	21.5	21.1	22.1	20.9	21.3	18.6	20.0	22.3	15.8	20.6	19.6	16.7
Smoke Every Day	20.2	18.4	19.0	18.8	15.5	16.0	17.0	13.3	15.0	13.7	15.5	16.0	10.0	15.0	13.2	9.8
Former Smoker	20.9	21.0	19.0	18.7	22.9	20.2	20.0	23.9	21.7	27.0	20.4	21.8	25.9	19.0	21.2	21.3
Smoke Some Days	5.5	8.2	5.5	6.0	6.0	5.1	5.1	7.6	6.3	4.9	4.5	6.3	6.1			

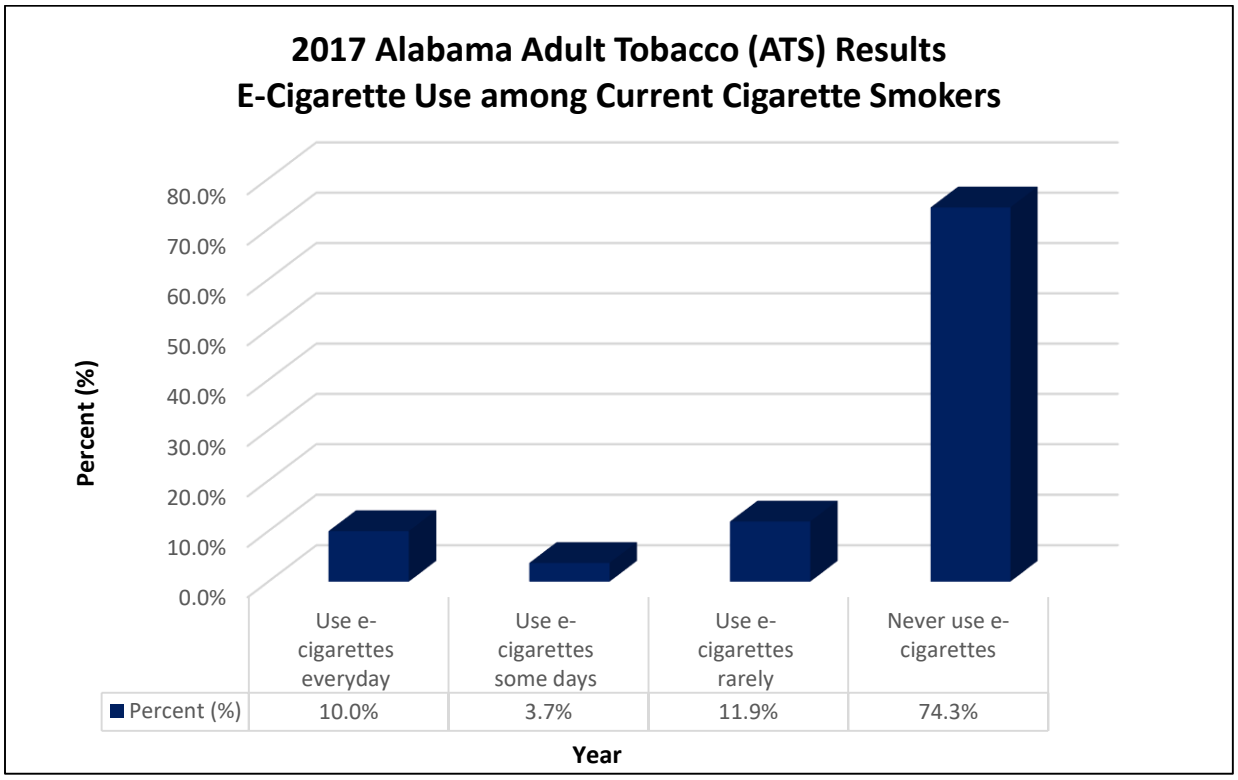
E-Cigarette or Vape Pen Use

E-Cigarettes produce a heated aerosol typically containing nicotine, which users inhale through a mouthpiece. The health effects of nicotine are well known; however, the health consequences of nicotine as an aerosol has become an increasing public health concern. The 2017 Alabama Adult Tobacco Survey (ATS) is a telephone survey of 1,131 adult Alabama residents. This survey contains self-reported data that assesses tobacco related behaviors and attitudes at the state level. However, according to Alabama Department of Public Health, the sampling is not designed to provide sub-state level data. Additionally, 2016 ATS data only asked current cigarette users about e-cigarette use. As a result, prevalence data for e-cigarette use cannot be compared across years.

In 2017, respondents were asked how many days in their entire life they had used e-cigarettes. The bar chart presents 2017 ATS data for each of the response categories. Percentages are based on a full sample with a margin of error of ±3% and a 95% confidence interval.

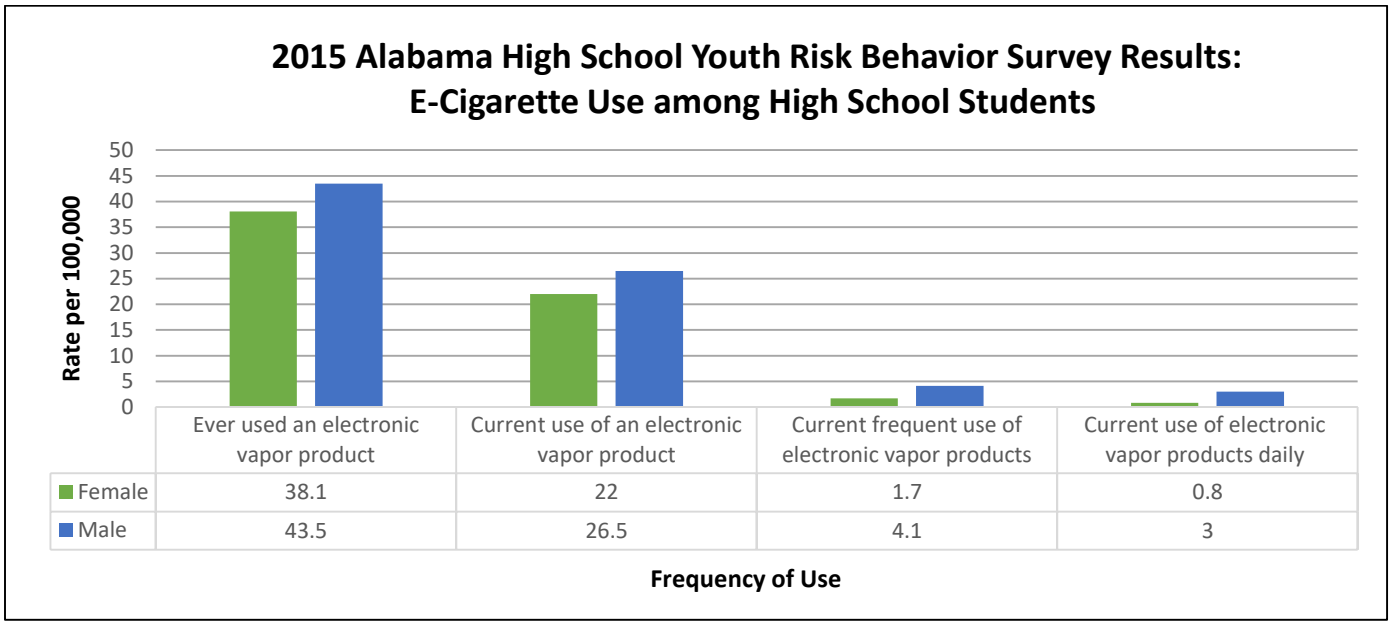


Respondents that had used e-cigarettes on one or more days became the sample for the remaining e-cigarette questions in the ATS. The bar graph depicts the full sample of e-cigarette users with a margin of error of ±3% and a 95% confidence interval. The majority of current cigarette smokers indicated they had not used e-cigarettes in the past 30 days.[4] ATS results indicated that Individuals who were current smokers and males were more likely than non-smokers and females to have used e-cigarettes. Females were more likely to use flavored cigarettes. Non-smokers tried to quit e-cigarette more times than smokers in the past year. More males than females tried to quit e-cigarettes in the past year and females were more likely to say they did not know how many times they tried to quit.



E-Cigarette or Vape Pen Use in Youth
Youth Risk Behavior Surveillance (YRBS)

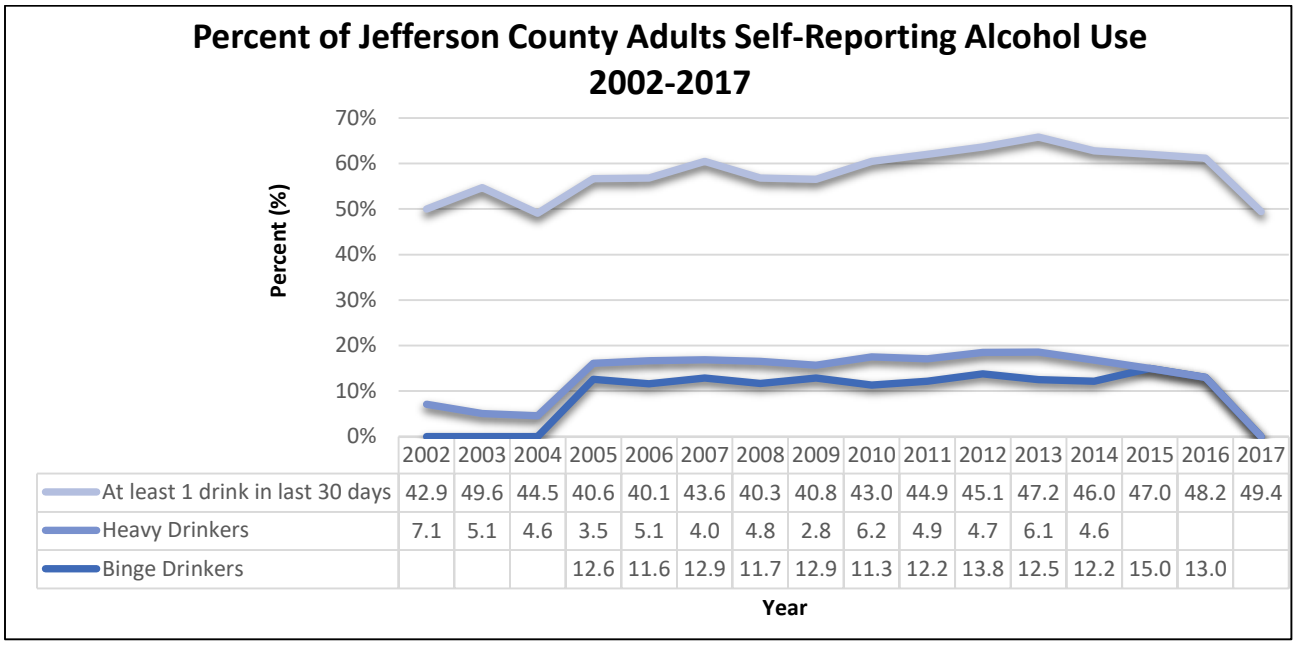
The Youth Risk Behavior Surveillance System (YRBSS) has a school-based Youth Risk Behavior Survey (YRBS) which conducts school based surveys by state, local education and health agencies. All respondents were asked if they had ever used an electronic vapor product, currently use an electronic vapor product, currently use electronic vapor products frequently, or currently use electronic vapor products daily. The bar graph presents responses from the full sample with a 95% confidence interval. There was no statistical difference between females and males who ever used an electronic vapor product and currently used an electronic vapor product. However, there was a statistical difference in the percentage of males who reported current frequent use of electronic vapor products and current use of electronic vapor products daily. In the state of Alabama, males are more likely than females to frequently use electronic vapor products. Males are also more likely than females to use electronic vapor products daily.



Data Source: Alabama, High School Youth Risk Behavior Survey, 2015

Alcohol Use

Alcohol use is defined as having one or more alcoholic beverages within the last 30 days, heavy drinkers are defined as males who drink two or more alcoholic drinks per day or females who drink one or more alcoholic drinks per day. Binge drinking is defined as consuming five or more alcoholic drinks on a single occasion for a male or four or more alcoholic drinks on a single occasion for a female. The percent of the adult population reporting alcohol use in each of these categories has not changed significantly over time. In 2016, 13.0% of residents self-reported binge drinking. In 2017, the Jefferson County Coroner's office reported 18.6% of Jefferson County driving deaths were associated with alcohol impairment. Jefferson County's percentage of heavy and binge drinkers is less than the Healthy People 2020 goal of 25.4% for heavy drinkers and 24.4% for binge drinkers. Some data for binge and heavy drinker categories was suppressed due to small sample sizes. Data is suppressed if there are fewer than 50 respondents.

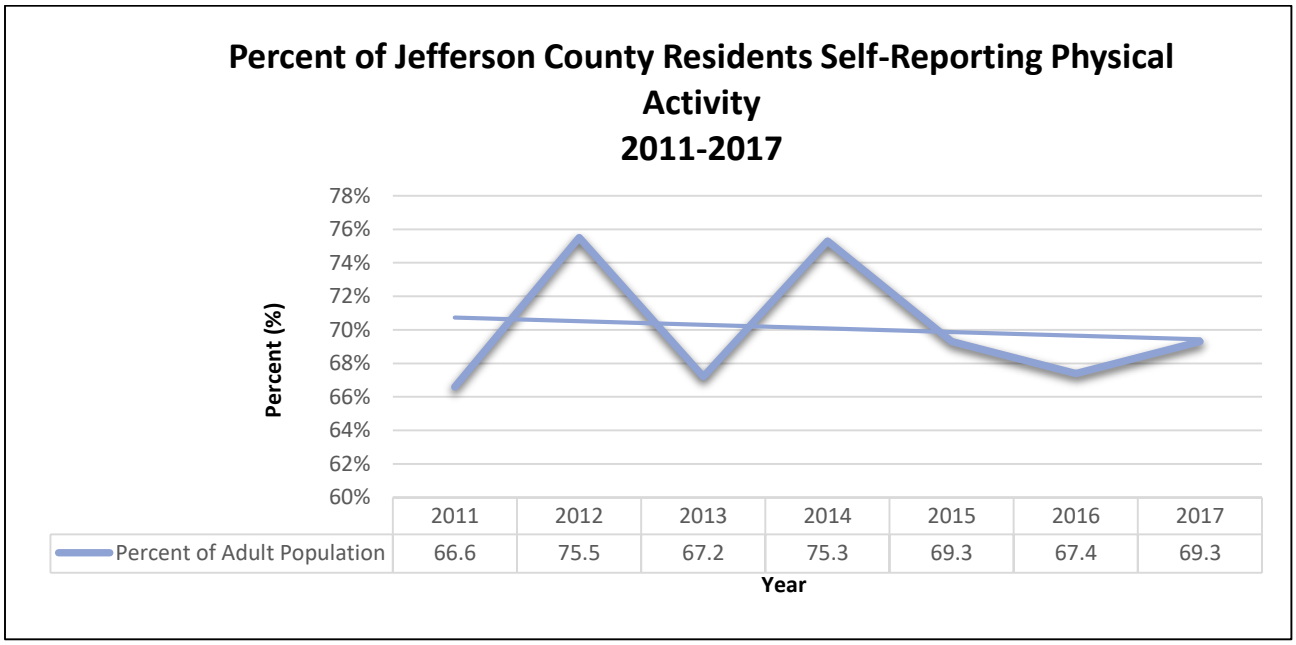


	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
At least 1 drink in last 30 days	42.9	49.6	44.5	40.6	40.1	43.6	40.3	40.8	43.0	44.9	45.1	47.2	46.0	47.0	48.2	49.4
Heavy Drinkers	7.1	5.1	4.6	3.5	5.1	4.0	4.8	2.8	6.2	4.9	4.7	6.1	4.6			
Binge Drinkers				12.6	11.6	12.9	11.7	12.9	11.3	12.2	13.8	12.5	12.2	15.0	13.0	

**Note: Due to a small sample size, binge drinker rates and heavy drinker rates were suppressed for the following years 2002-2004 and 2015-2017.*

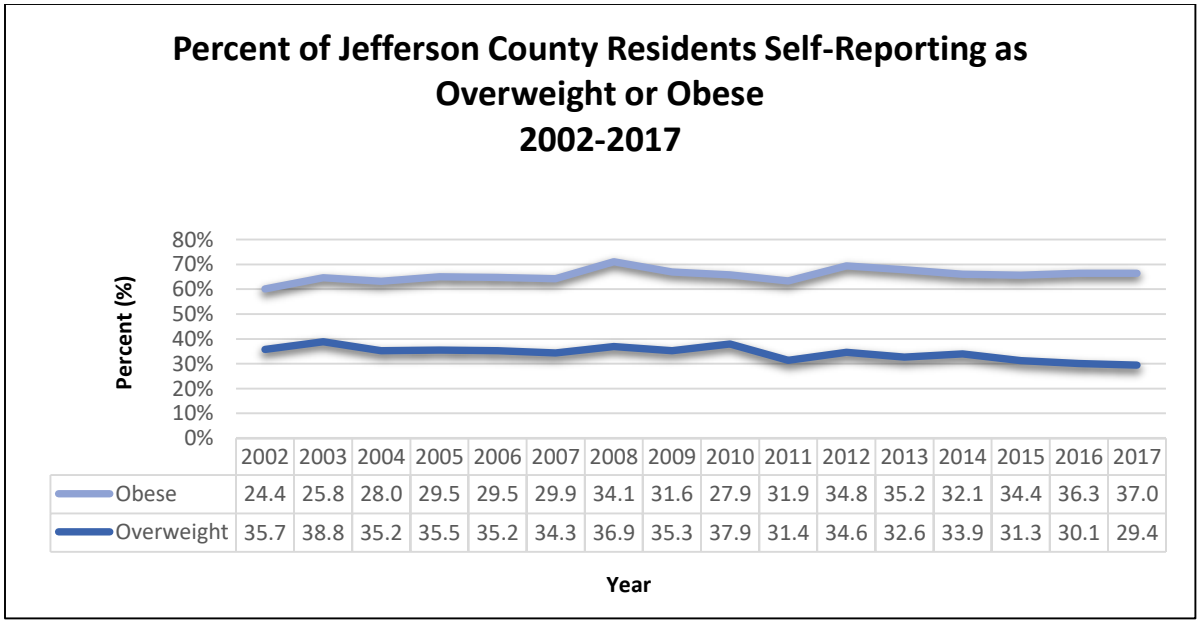
Physical Activity

When BRFSS survey participants were asked, "During the past month, did you participate in any physical activity?", 66.6% of the adult population reported physical activity in 2011. In 2017, there was a 4.1 % increase in self-reported physical activity from 2011 with 69.3% of the adult population reporting physical activity within the past month.



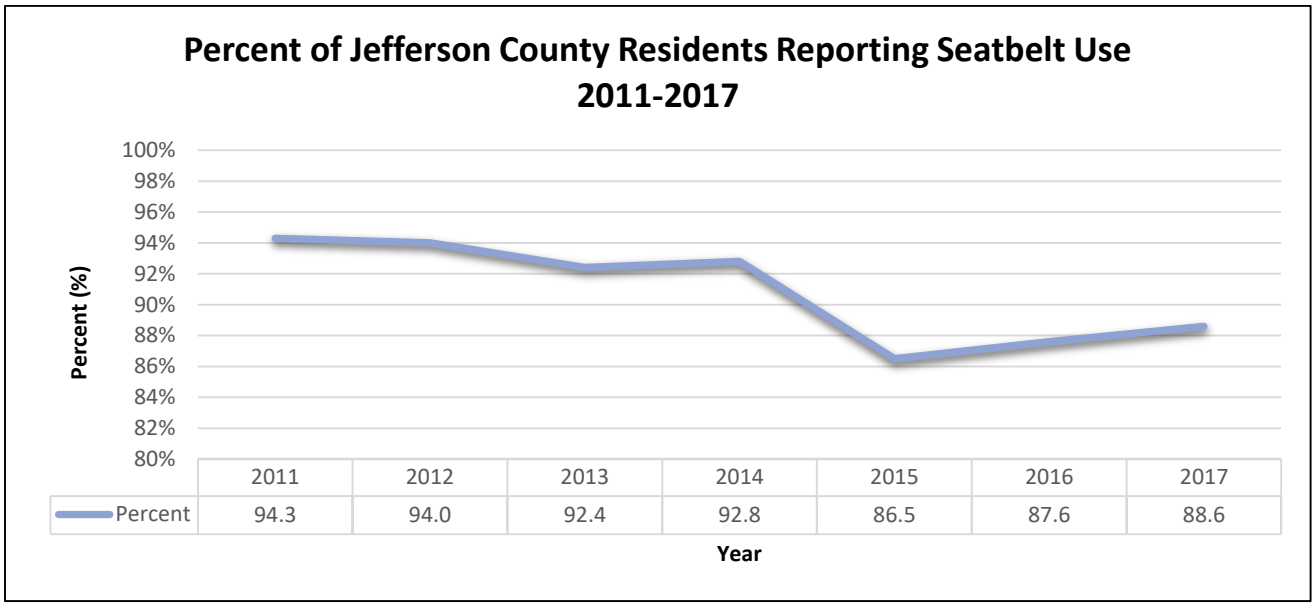
Overweight and Obesity

The percent of the adult Jefferson County population self-reported as obese increased between 2012 and 2017; while the percentage of adults self-reporting as overweight declined during the same time period. In 2017, Jefferson County reported adult obesity rates of 37.0%, higher than the Healthy People 2020 target of 30%.



Seatbelt Use

Seatbelt use has overall declined since 2011. In 2011, 94.3% of Jefferson County adults self-reported always using a seatbelt. In 2017, 88.6% of adults reported seatbelt use. Despite the decrease in the percentage of residents self-reporting seat-belt use, these deviations are not statistically significant.

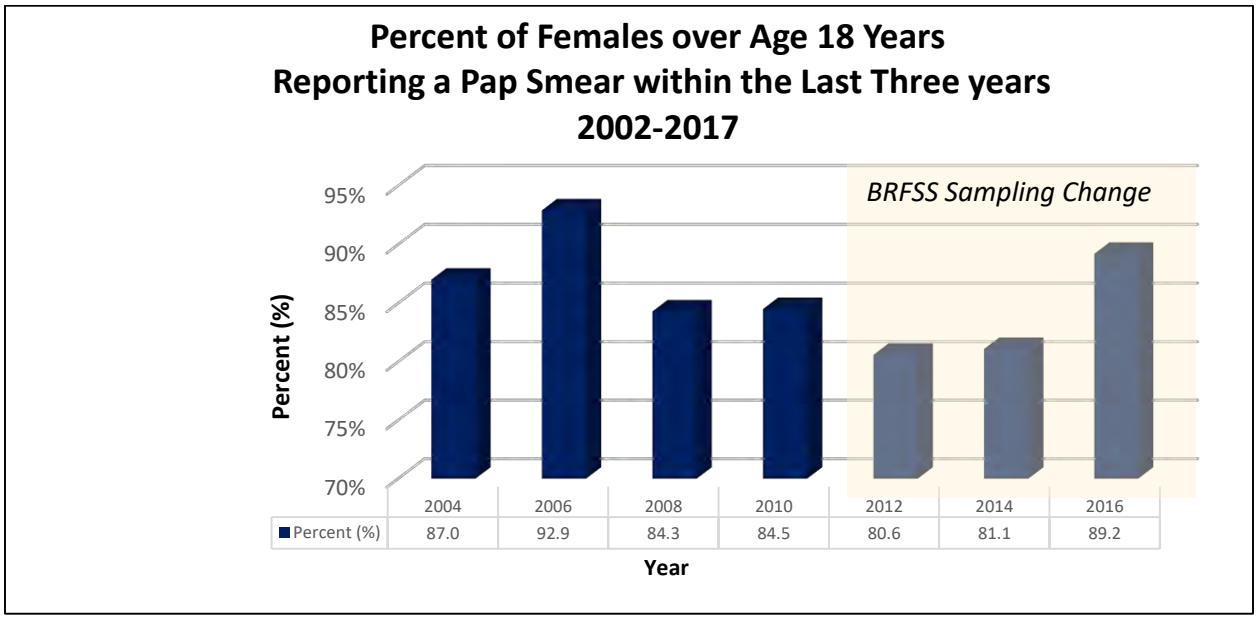


Screenings

Overall, the self-reported disease screening rates for Jefferson County residents are declining for some diseases and are remaining static for other disease states.

Pap Smear

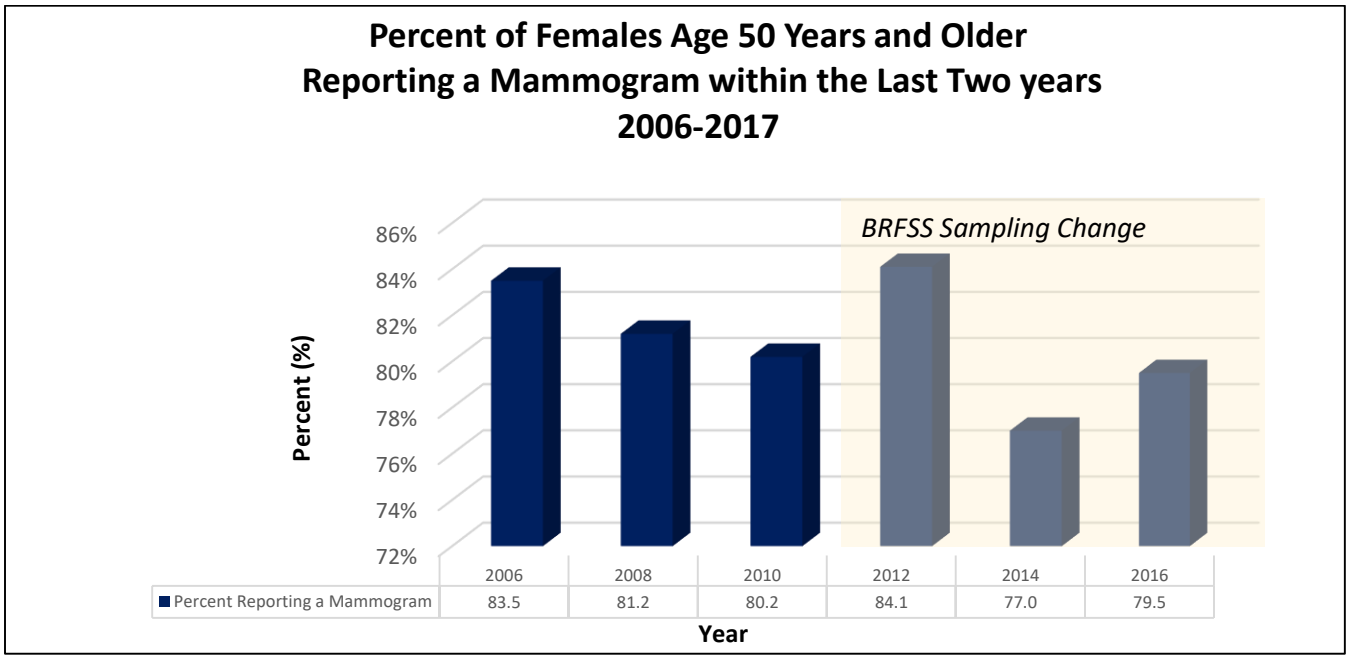
The percent of females over age 18 years reporting receipt of a Pap smear within the last three years decreased from 92.9%, a screening high, in 2006. Jefferson County's 2016 rate of 89.2% of age appropriate females receiving a Pap smear is less than the Healthy People 2020 goal of 93% of females ages 21 to 65 receiving a Pap smear every three years. Between 2012 and 2016, the Jefferson County Pap smear completion rate demonstrated a 9.6% relative change; this improvement is statistically significant.



*Pap smear indicators are assessed every other year via the BRFSS Survey.

Mammograms

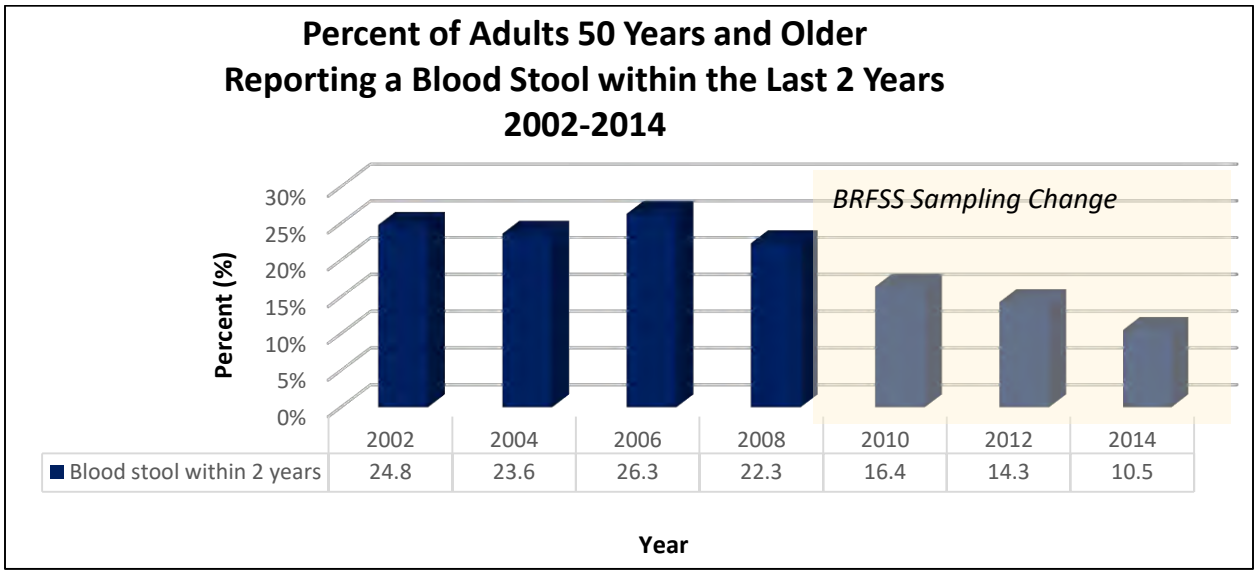
In 2012, 84.1% of women over age 50 reported receiving a mammogram within the past two years. In 2016 the percentage decreased with 79.5% of women over age 50 reported receiving a mammogram within the past two years. The healthy people 2020 target is 81.1%.

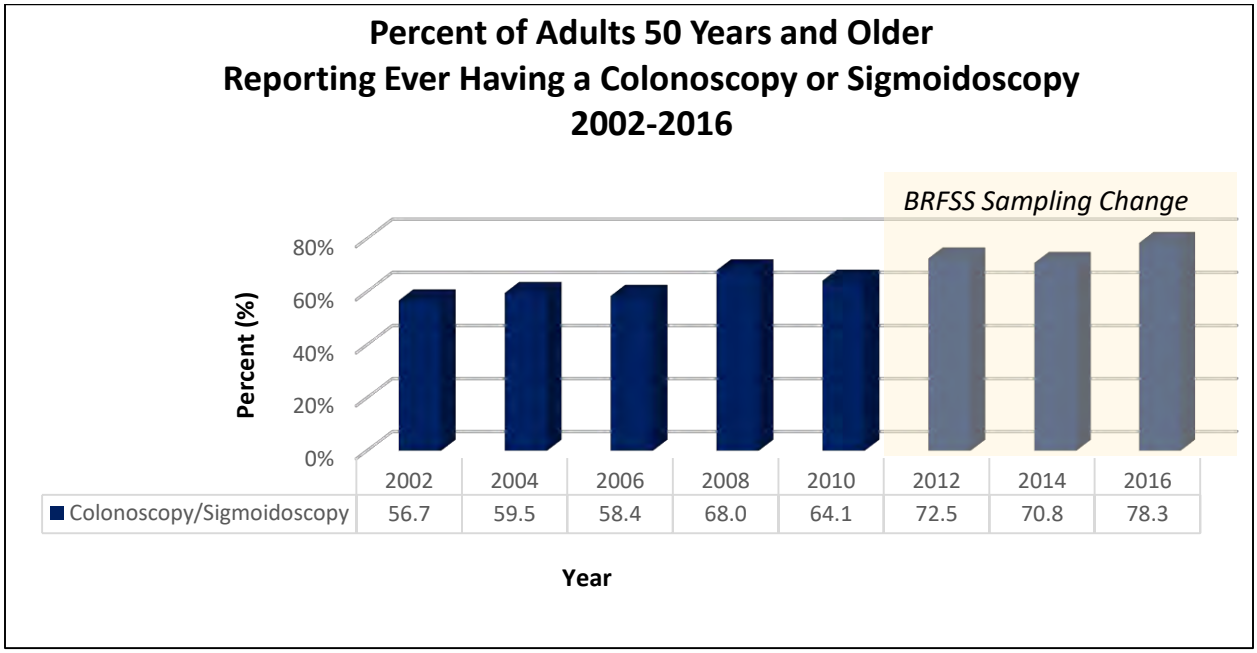


*Mammography completion is reported every other year via the BRFSS Survey

Colorectal Cancer Screenings

The national Healthy People 2020 goal for colorectal cancer screening is that 70% of adults over the age of 50 receive some type of colorectal screening. The percent of Jefferson County adults reporting a blood stool test within the last two years has reduced significantly from 24.8% in 2002 to 10.5% in 2014. The 2016 blood stool test data was suppressed due to a small sample size. The percent of the county's population reporting a colonoscopy/sigmoidoscopy, however, increased from 56.7% in 2002 to 78.3% in 2016, a 38.1% increase. Between 2012 and 2016, the percentage of age-eligible Jefferson County residents reporting a colonoscopy or sigmoidoscopy increased to 78.3%, a change that is statistically significant.

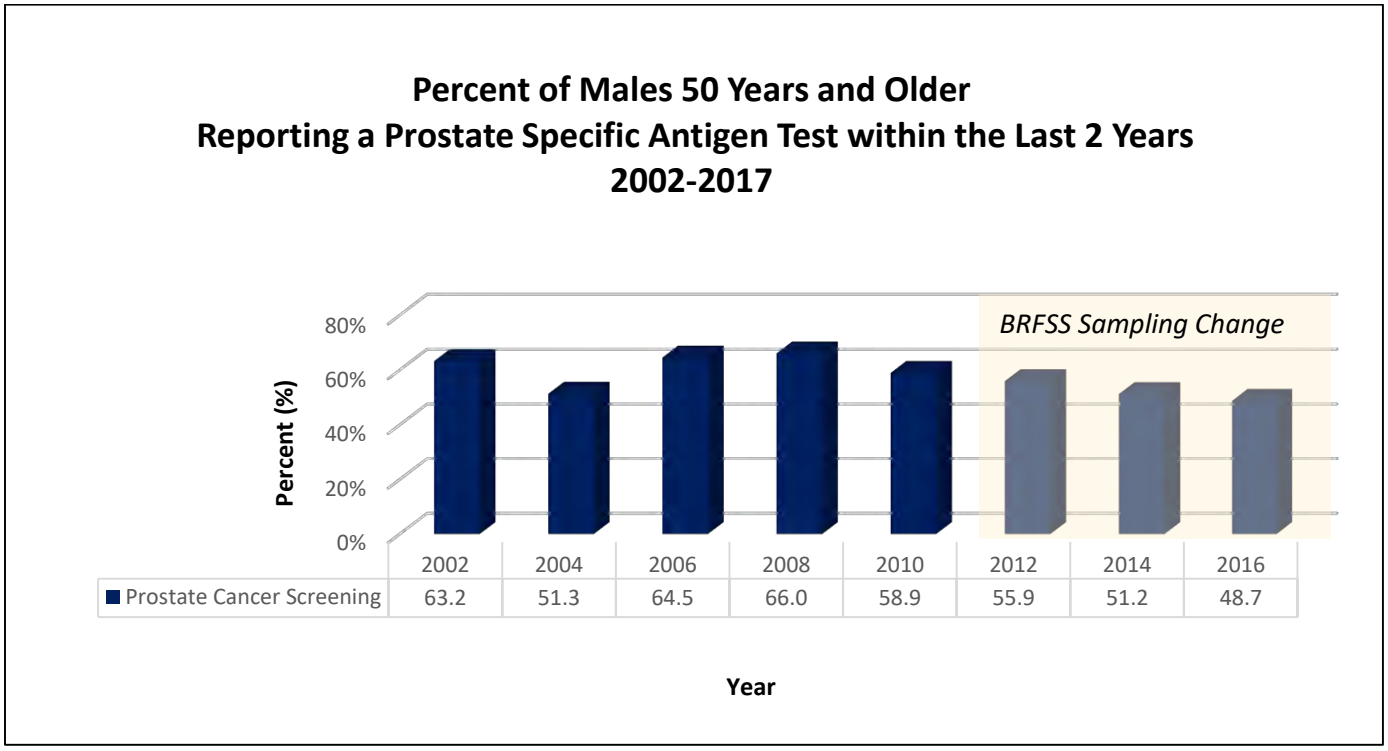




*Colorectal Cancer Screenings are reported every other year via BRFSS

Prostate Cancer Screening

In 2016, prostate cancer screening decreased by 12.9% from the 2012 screening percentage of 55.9%. Approximately 48.7% of males over age 50 reported a Prostate Specific Antigen test within the last two years.



*Prostate Specific Antigen testing rates are reported every other year via BRFSS.

Behavioral Risk Factor Findings

Tobacco use, the number one cause of preventable death in the United States, remains a significant health issue in Jefferson County. While smoking rates have decreased over the past ten years, to 16.7% of the adult population in 2017, Jefferson County continues to have a significantly higher percentage of current smokers than the national Healthy People 2020 goal of 12%. Another behavioral risk factor that represents a substantial risk for the Jefferson County population is obesity. Jefferson County's 2017 obesity rate, 37.0%; exceeds the national Healthy People 2020 target of 30% and has continued to increase between 2014 and 2017.

Disease-specific screening rates in Jefferson County vary by disease state. Among women in Jefferson County, Pap smear rates increased from 80.6% in 2012 to 89.2% in 2016; but remained below the Healthy People 2020 goal of 93% of age-appropriate women receiving a Pap smear. Mammography completion rates for age-appropriate women declined from 2012 to 2017. Among men, Prostate Specific

Antigen (PSA) screening rates declined between 2012 and 2017 with about 48.79% of age- appropriate men reporting this testing in 2016. While blood stool screening rates for colorectal cancer have decreased, the rates of colonoscopy or sigmoidoscopy have demonstrated a statistically significant increase between 2012 and 2016.

Alcohol use among Jefferson County adults demonstrated a statistically significant increase between 2012 and 2016 but still remains lower than the Healthy People 2020 goal. Although 69.3 % of Jefferson County's residents self-reported physical activity for 2016, this percentage marginally declined from the 2014 high of 75.3%. In 2017, the self-reported seatbelt use rate declined to 88.6% of the population reporting regular seat belt use from a previous high of 94.3% in 2011; this change is not statistically significant.

Environmental Health[72-74]

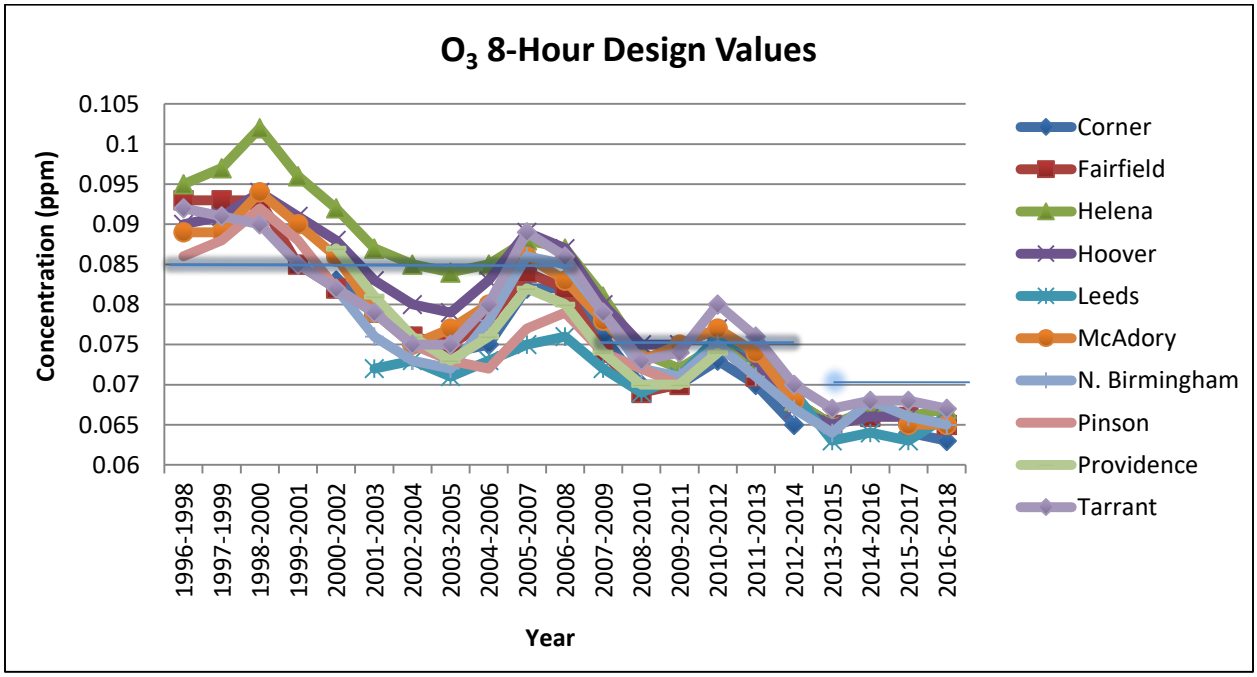
Indicators within the Environmental Health category represent measures of environmental health that can impact human health and disease states. Environmental Health indicators include measures of outdoor air quality, indoor air quality, food safety, water safety, lead exposure, and the miles of trails in Jefferson County.

Outdoor Air Quality

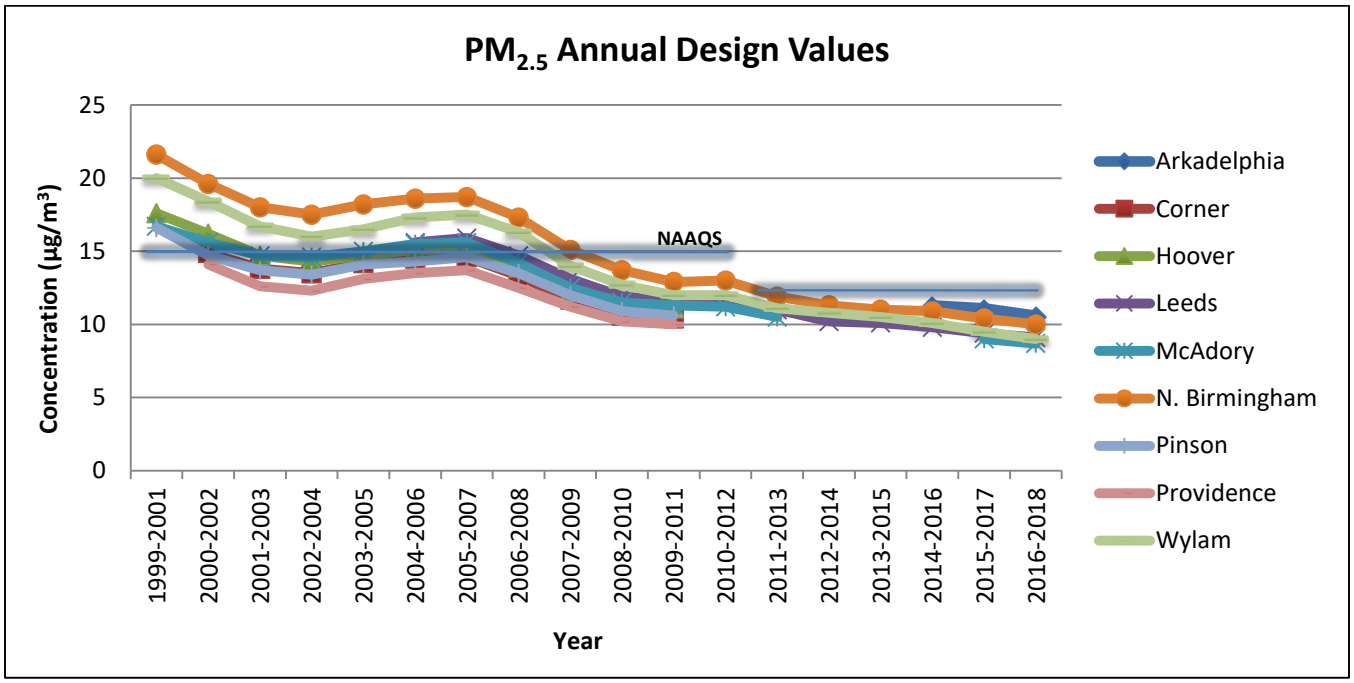
Outdoor air quality standards for air pollutants are established by the Environmental Protection Agency (EPA) for each air pollutant. The Jefferson County Department of Health enforces pollution regulations for major air pollution sources to assure outdoor air quality meets healthy clean air standards.

Ozone

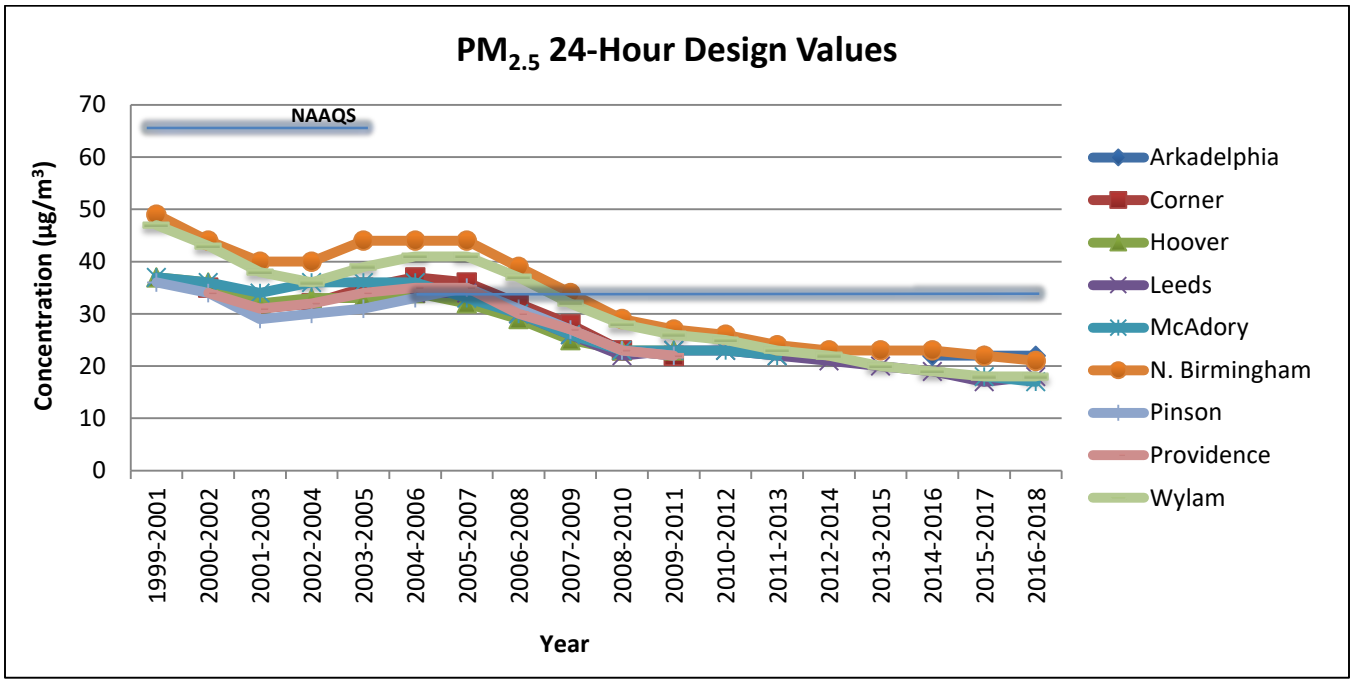
Ozone is the principal component of smog and represents a health risk if inhaled in high concentrations. In 1997, the eight hour Ozone Compliance Standard was established at 0.085 parts per million; this standard was revised in 2008 to 0.075 parts per million. In 2015, The Environmental Protection Agency revised the 8-hour O_3 standard and lowered it to 0.070 parts per million. The graph below represents the 8-hour ozone design values in parts per million (ppm) for 1996-2018. The highlighted blue line indicates the National Ambient Air Quality Standards (NAAQS). There has been a downward trend in O_3 levels since 1996. The Birmingham area was designated as attainment of the 2015 8-hour ozone standard in 2017.



Particulate matter consists of solid particles and liquid droplets. $PM_{2.5}$ represents fine particles that are less than or equal to 2.5 micrometers in diameter, and PM_{10} consists of coarse particles that are less than 10 micrometers in diameter. These are used as the basis for the ambient air quality standard. Exposure to high concentrations of particulate pollution causes eye, nose and throat irritation, aggravation of chronic lung disease and symptoms of heart and respiratory problems. The following graph represents Annual $PM_{2.5}$ design values in (µg/m^3) for 1999-2018. The highlighted blue line indicates the National Ambient Air Quality Standards (NAAQS), which is 12 µg/m^3 (previously 15 µg/m^3). There has been a downward trend in $PM_{2.5}$ concentrations since 1996, current concentrations are below both current standards.



In 2018, The Environmental Protection Agency (EPA) established a primary 24-hour standard for PM_{10} of 150 µg/m^3. During the most recent three years of monitoring data, all monitors were in compliance with the 24-hour standard. The graph below represents 24-hour $PM_{2.5}$ design values in (µg/m^3) for 1999-2018. The highlighted blue line indicates the National Ambient Air Quality Standards (NAAQS), of 35 µg/m^3(previously 65 µg/m^3). There has been an overall downward trend in PM_{10} concentrations over time. The Birmingham area is designated as attainment of the standard for PM_{10}.



Indoor Air Quality

Indoor air quality is measured by the percent of Jefferson County residents protected from indoor smoke exposure through smoke-free public policies.

Percent of Jefferson County Municipalities and Residents Protected by *Any* Smoke-Free Public Policy			
	Reference Percent Protected (Year)	**Index Percent Protected (Year)**	**Endpoint Percent Protected (Year)**
Municipalities	**2.6%** (1990)	**52.6%** (2013)	**51.2 %** (2019)
Residents	**62.4%** (2000)	**76.3%** (2013)	**84.2 %** (2019)

The first comprehensive smoke-free public ordinance was passed in Jefferson County in 2011. As of 2019, 47.8% of Jefferson County residents are protected under a comprehensive smoke-free policy.

Percent of Jefferson County Municipalities and Residents Protected by *Comprehensive* Smoke-Free Public Policy			
	Reference Percent Protected (Year)	**Index Percent Protected** (Year)	**Endpoint Percent Protected** (Year)
Municipalities	**5.3%** (2011)	**10.5%** (2013)	**16.3%** (2019)
Residents	**2.1%** (2011)	**39.1%** (2013)	**47.8%** (2019)

Food Safety

Foodborne illnesses represent a significant public health concern. Food safety plays a crucial role in preventing the spread of foodborne illnesses. The Healthy People 2020 goal is to reduce foodborne illnesses in the United States by improving food safety-related behaviors and practices. Foodborne illnesses are preventable and present a significant risk to highly susceptible populations.

Inspections

The number of food establishments and mandated inspections fluctuate in Jefferson County annually as facilities begin and end business. The type of food establishment determines the number of inspections required, so trends cannot reliably be established for these indicators. However, the number of food establishments and mandated inspections have increased since 1998 to 2018, based on the number of food permits issued. In 2018, 4,317 food permits were issued in Jefferson County.

JCDH regulates, permits, inspects, and investigates complaints within Jefferson County. The tables below represent the number of inspections and complaint investigations performed in 2018.

Inspections by Type	Number of Inspections
Food	11,872
Lodging (hotel/motel)	107
Child Care	95
Communal Living	52
Camp	1
Total All Inspections	**12,108**

Complaints Investigated	Number
Total Complaints	**939**
Total Complaint Investigations	**1,466**

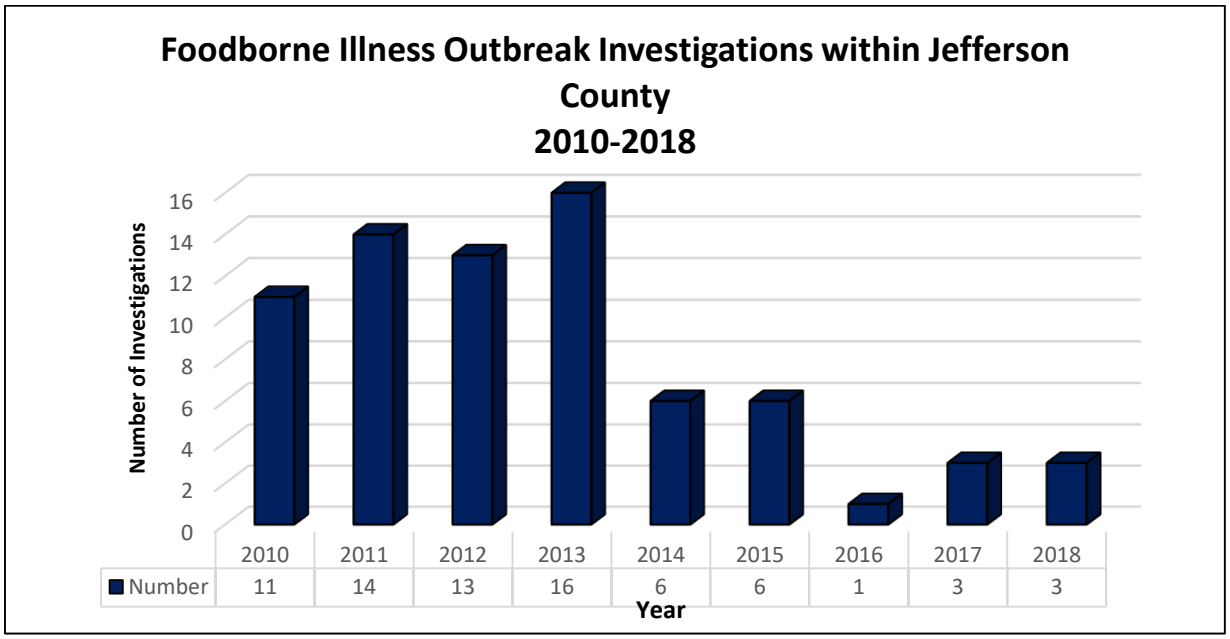
In addition to permitting and regulating food establishments, JCDH also provides food safety education to individuals through online, classroom and satellite classes. The table below represent the number of individuals trained and managers certified during 2018 within Jefferson County.

Food Safety Education	Number
Food Handler Training	
Total Participants	14,129
Online Option	11,184
Classroom (JCDH) Option	2,380
Satellite (off-site) Option	565
Certified Manager Courses	
Total Participants	384
Certifications	222
Classes/Exams	18

Foodborne Illness

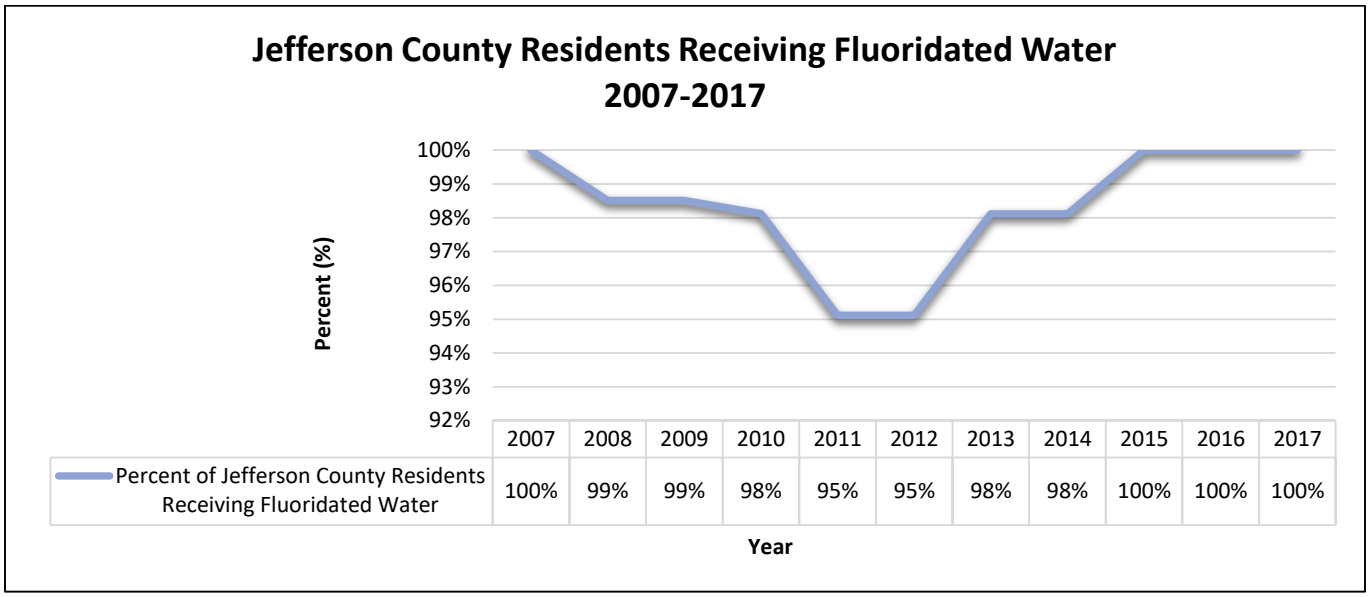
While the case rate of known foodborne illness showed a slight downward trend from 2006 to the present, the variation in the number of outbreaks associated with these cases has not coincided with changes in the number of outbreaks. Foodborne illness outbreaks peaked at 80 in 1999 and have gradually decreased since that time.

When a foodborne illness outbreak is detected within Jefferson County, JCDH initiates an outbreak investigation. Foodborne illness outbreak investigations peaked at 16 in 2013 and have gradually decreased to 3 in 2018.



Water Quality

Fluoridated water is an important preventive intervention for dental caries. After the city of Irondale eliminated public water fluoridation in 2008, the proportion of Jefferson County residents on municipal water systems receiving fluoridated water dropped to 98.1% in 2012. In 2017, 100% of Jefferson County's Residents were receiving fluoridated water. No other Jefferson County municipality is expected to eliminate public water fluoridation. Data is unavailable on the number of individuals utilizing unfluoridated wells.



Lead Exposure (Children)

Protecting children from lead exposure plays a significant role in improving health outcomes. Low levels of lead in blood have been proven to affect IQ, concentration and academic achievement. Since 1992 when lead testing was first instituted, the total number of cases of Elevated Blood Lead Levels significantly decreased from 128 cases in 1992 to 22 cases in 2010; however, the threshold for the case definition changed during this timeframe from > 15 mcg/dL to > 10 mcg/dL in 2000, then to > 5 mcg/dL in 2013. With each expansion of case inclusion, there was an expected increase in the number of cases. Lead data prior to 2013 was collected in the Center for Disease Control and Prevention's (CDC) Systemic Tracking of Elevated Lead Levels and Remediation (STELLAR) system. Mid 2013, STELLAR was replaced by Healthy Homes and Lead Poisoning Surveillance System (HHLPSS). Due to the data migration, data prior to 2013 may be inaccurate. In 2013, 329 cases were reported to have blood lead level results ≥ 5 mcg/dL. In 2018, 227 cases were reported to have blood lead level results ≥ 5 mcg/dL; which represents a 31% decrease from 2013.

Trails

Trails positively impact communities by encouraging residents to adopt healthy lifestyles by providing an opportunity for increasing physical activity in the beauty of Jefferson County. The number of miles of both on-street bike infrastructure and multi-use trails in Jefferson County has significantly increased across a five-year time frame.

	Reference Miles (2012)	Index Miles (2014)	Endpoint Miles (2019)	Relative Percent Change
On-street Bike Infrastructure	4.4	7.4	18.9	329.5%
Multi-Use Trails	12.3	13.4	101.86	728.1%

Environmental Health Findings

Environmental health indicators related to outdoor air quality show that air quality in Jefferson County is improving, with fewer days out of compliance with ozone and $PM_{2.5}$ standards. Indoor air quality in Jefferson County continues to improve as well with the implementation of comprehensive tobacco-free public ordinances. The opportunity to improve indoor air quality continues, as less than 50% of the Jefferson County population is protected with comprehensive smoke-free policies.

With an increasing number of food establishments and a higher number of recommended FDA standard inspections per food establishment, the gap in the number of inspections performed and the FDA standard inspections has continued to widen. This indicates an increased need for food inspectors to meet national food safety standards. It is difficult to track foodborne illness outbreak due to the difficulty is establishing the causative agent for the outbreak; however, the data indicates a decrease in food related outbreaks.

As the population of the city of Irondale has increased over the last five years, the city's decision to eliminate fluoridation from its public water supply in 2008 has increased the risk of dental cares.

The number of cases of elevated blood lead levels among children in Jefferson County has decreased despite the changing case definitions to the elevated blood lead level threshold. With a new threshold level established in 2013, no trend for this case definition can be determined at this time.

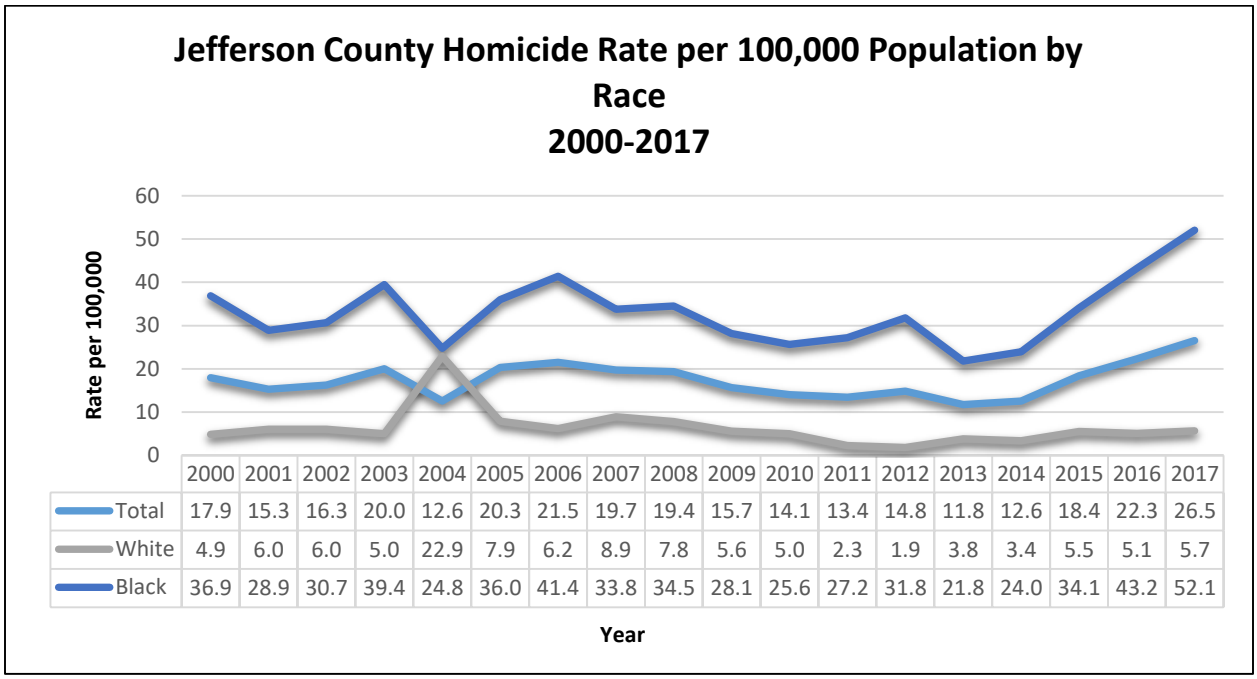
Opportunities for physical activity through the use of trails and bike lanes are increasing in Jefferson County.

Social and Mental Health[1,66]

Measures of social and mental health include suicide and homicide rates, as well as the number of poor mental health days and depression status.

Homicide

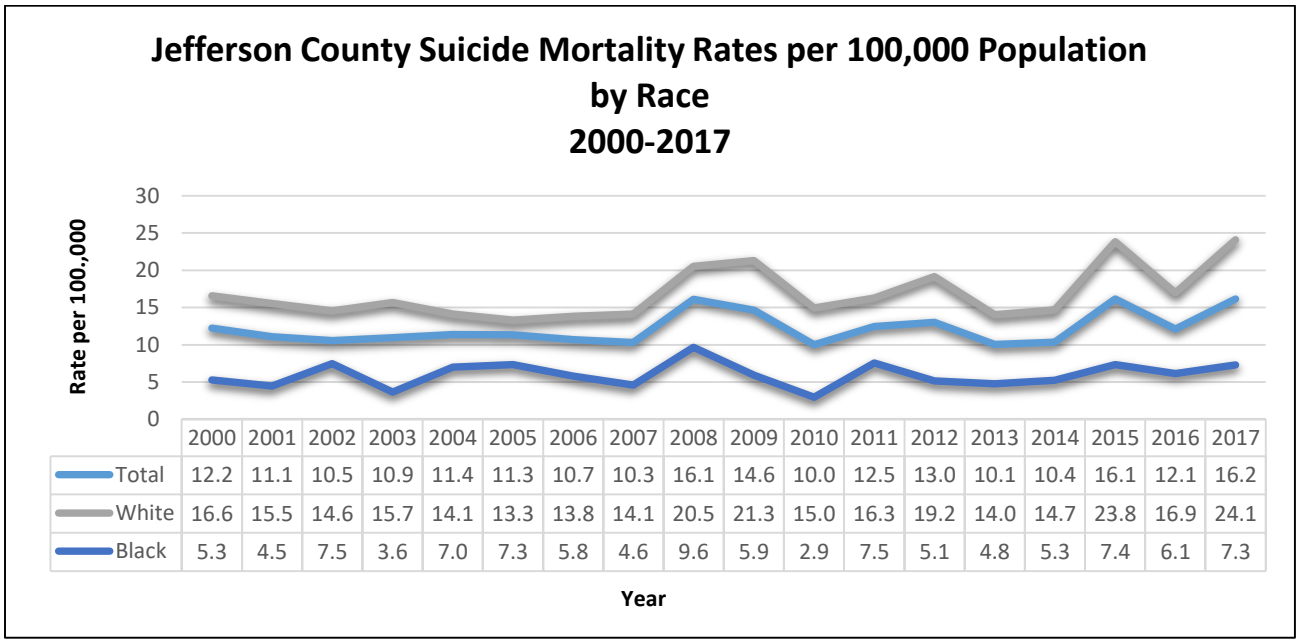
Homicide rates increased in Jefferson County by 16.8% from 14.8 per 100,000 population in 2012 to 26.5 per 100,000 population in 2017. Although significantly higher among the black population, this increase has been detected among both white and black populations of Jefferson County.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	17.9	15.3	16.3	20.0	12.6	20.3	21.5	19.7	19.4	15.7	14.1	13.4	14.8	11.8	12.6	18.4	22.3	26.5
White	4.9	6.0	6.0	5.0	22.9	7.9	6.2	8.9	7.8	5.6	5.0	2.3	1.9	3.8	3.4	5.5	5.1	5.7
Black	36.9	28.9	30.7	39.4	24.8	36.0	41.4	33.8	34.5	28.1	25.6	27.2	31.8	21.8	24.0	34.1	43.2	52.1

Suicide

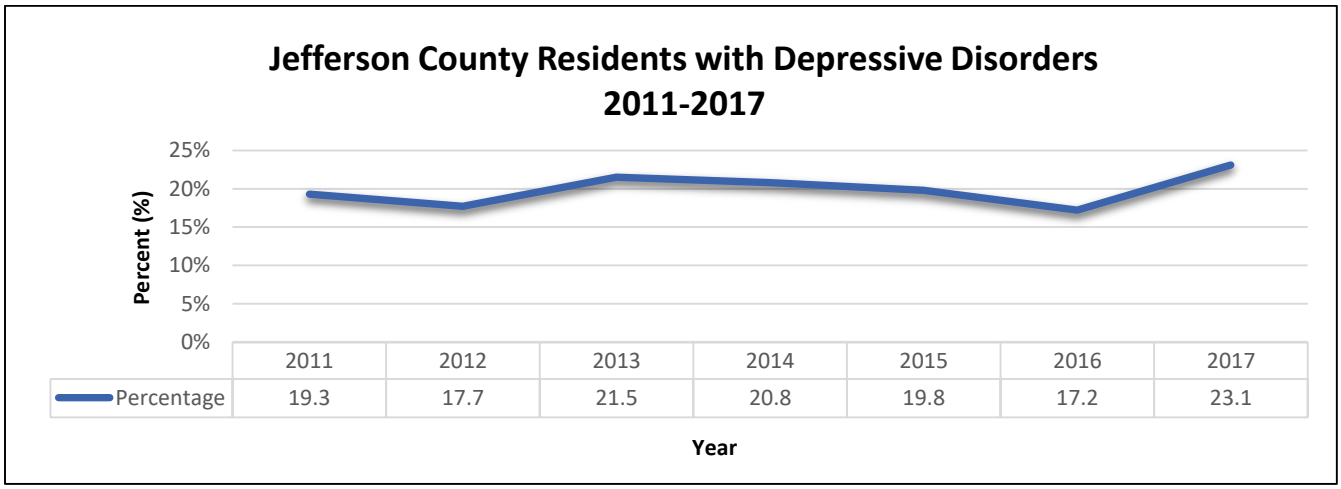
Suicide rates remained relatively static over time within Jefferson County. There was an increase in suicide mortality among the white and black populations in 2008 but declined and stabilized. However, since 2014 suicide rates have increased from 10.4 to 16.2 in 2017. This increase occurred among both white and black populations. Although the suicide rate has increased in both populations, it remains significantly higher among the white population.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	12.2	11.1	10.5	10.9	11.4	11.3	10.7	10.3	16.1	14.6	10.0	12.5	13.0	10.1	10.4	16.1	12.1	16.2
White	16.6	15.5	14.6	15.7	14.1	13.3	13.8	14.1	20.5	21.3	15.0	16.3	19.2	14.0	14.7	23.8	16.9	24.1
Black	5.3	4.5	7.5	3.6	7.0	7.3	5.8	4.6	9.6	5.9	2.9	7.5	5.1	4.8	5.3	7.4	6.1	7.3

Depression

In 2011, the BRFSS questionnaire asked a question regarding depressive disorders (including depression, major depression, dysthymia, or minor depression). In 2012, 17.7% of Jefferson County's adults indicated that they had been told they have a depressive disorder. In 2017, 23.1% of the county's adults indicated that they had been told by a physician they have depression.



	2011	2012	2013	2014	2015	2016	2017
Percentage	19.3	17.7	21.5	20.8	19.8	17.2	23.1

Social and Mental Health Findings

While Jefferson County's homicide rate has decreased since 2000, homicide remains a concern, especially among the black population. Suicide rates have increased since 2014. In 2017, 23.1% of the

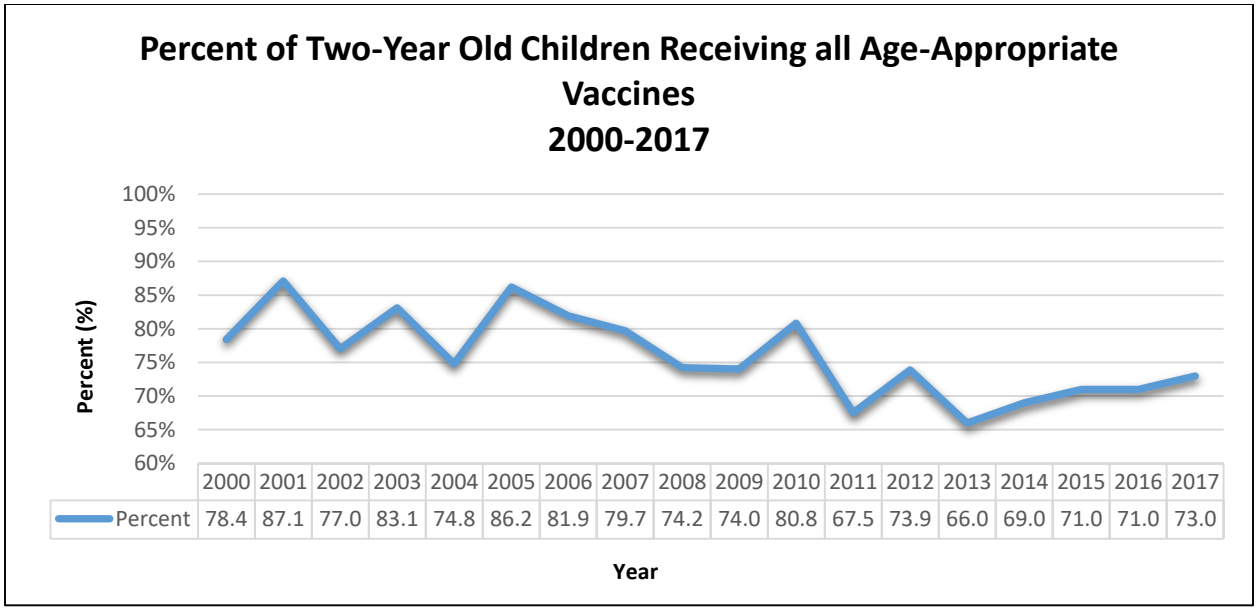
Jefferson County adult population indicated that they had been diagnosed by a physician with depression.

Communicable Diseases[1, 78-79]

Indicators in this category include data related to immunizations, sexually transmitted diseases, Tuberculosis and Hepatitis.

Proportion of Two Year Old Children Receiving Age-Appropriate Vaccinations

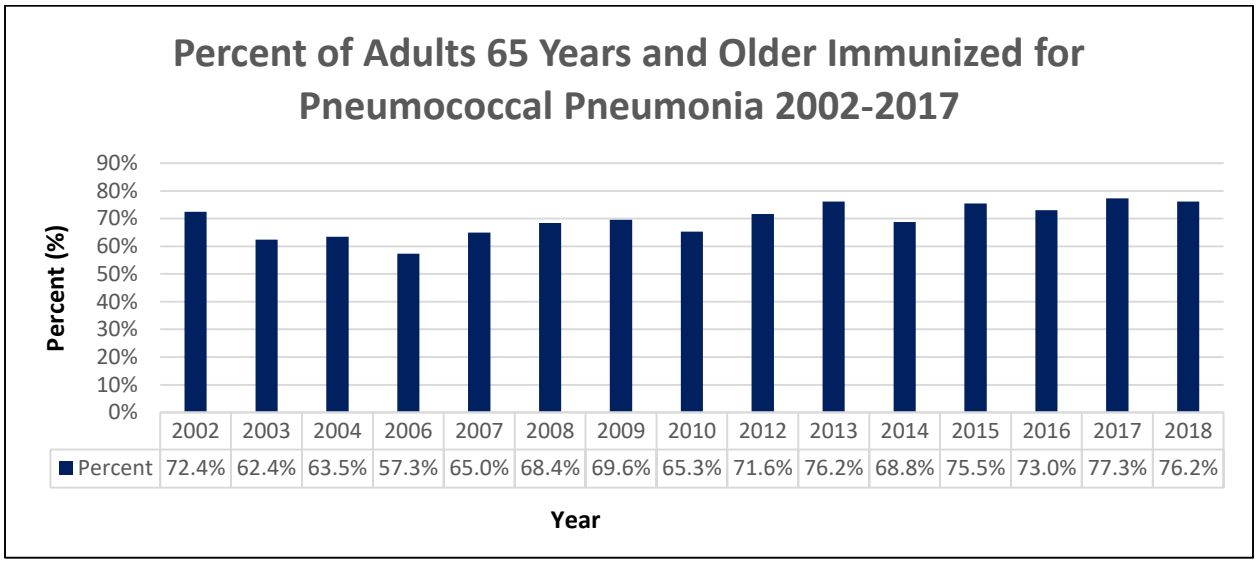
The Advisory Committee on Immunization Practices provides annual guidance on the recommended vaccinations for children and adults. Immunization recommendations for two year old children include vaccinations for Hepatitis B, Rotavirus, Diphtheria, Tetanus and Pertussis, Haemophilus Influenza B, Pneumoccocal virus, Polio, Influenza, Varicella, and Hepatitis A. While the variance in the rates of two year old age-appropriate vaccination between 2000 and 2017 is not significant, the percent of children who have received all age-appropriate vaccinations has not returned to the 2001 peak of 87.1%.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Percent	78.4	87.1	77.0	83.1	74.8	86.2	81.9	79.7	74.2	74.0	80.8	67.5	73.9	66.0	69.0	71.0	71.0	73.0

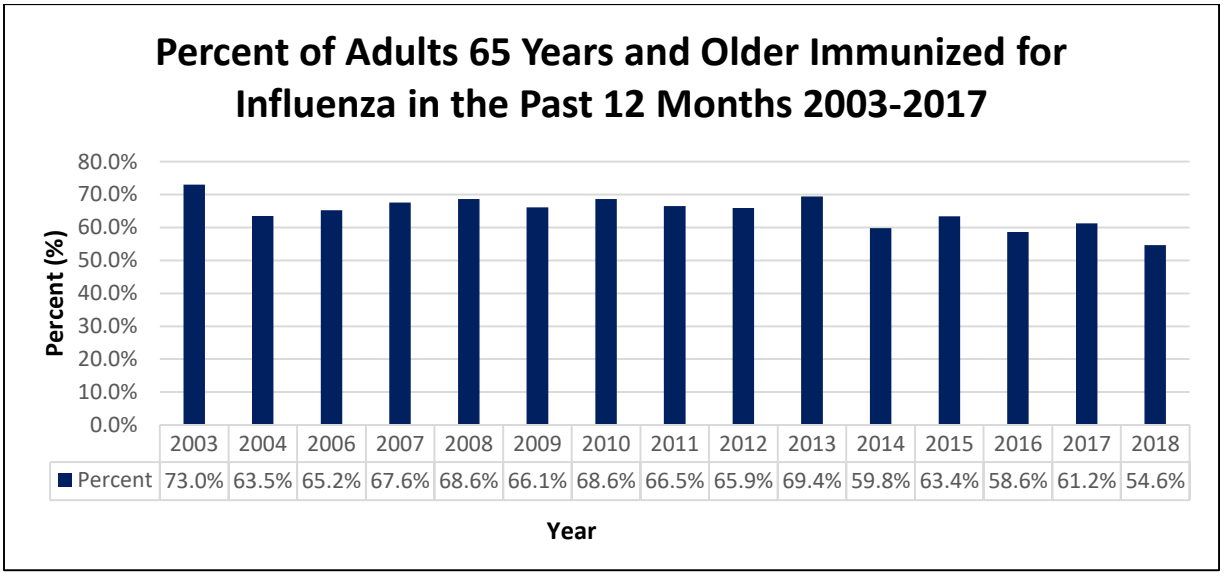
Proportion of Adults Over Age 65 Immunized for Pneumococcal Pneumonia

Pneumococcal pneumonia is a bacterial infection that can affect the lungs. This disease especially affects the sub-population over age 65 and can cause death. Immunization is important in preventing pneumococcal infection among this susceptible population. Since 2010, pneumococcal pneumonia immunization rates in Jefferson County have gradually increased by 16.7% for the sub-population over age 65. Overall, this change is not statistically significant.



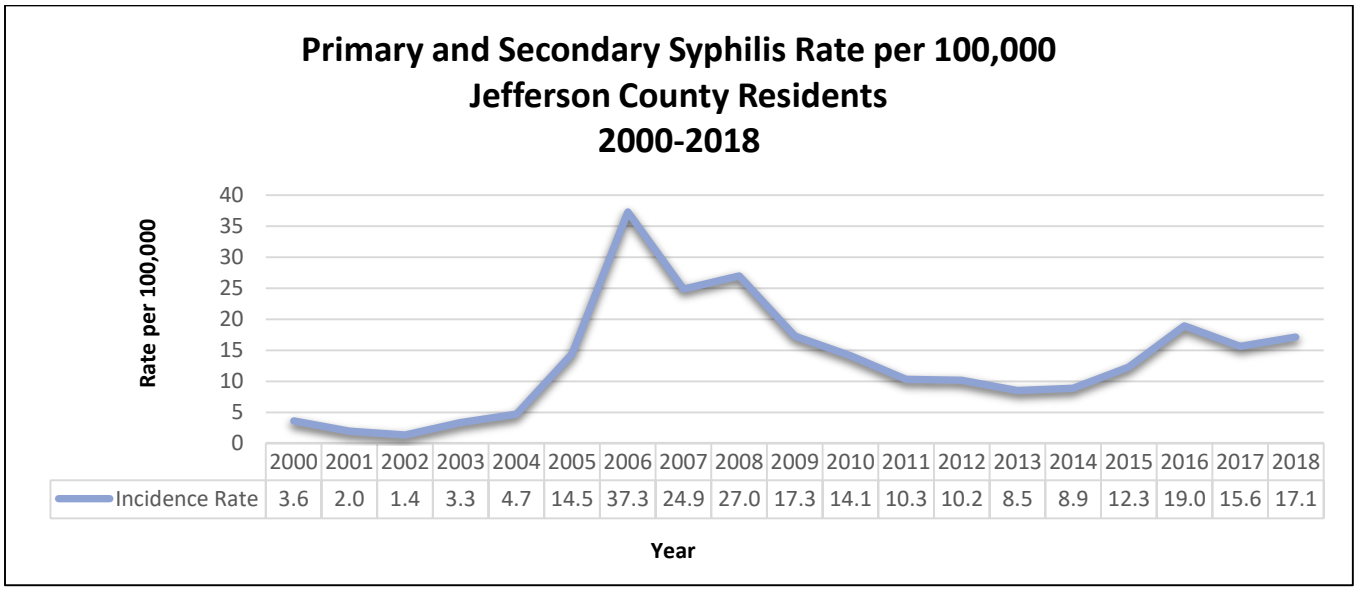
Proportion of Adults Age 65 and Older Immunized for Influenza in the Past 12 Months

Influenza is another disease that adversely affects people over age 65 and disproportionately causes illness and death in this sub-population. According to the CDC, people 65 years and older bear the greatest burden of severe flu disease. Annual influenza immunization rates in Jefferson County have fluctuated since 2013. However, there is no statistically significant difference in vaccination rates among Jefferson County's sub-population.



Syphilis

Syphilis is a sexually transmitted infection that can cause severe long-term complications if it is not treated properly or remains untreated. Syphilis infection is reported as primary, secondary or late stage, depending on the stage of illness at diagnosis. Jefferson County's syphilis rates remained static from 2000 to 2003. In 2005, there was a dramatic increase in the rates of primary and secondary syphilis infection. Jefferson County's Syphilis rate remains below the 2006 high of 37.3 per 100,000 population; however, the rates for this infection have not returned to the lowest levels observed in 2002.

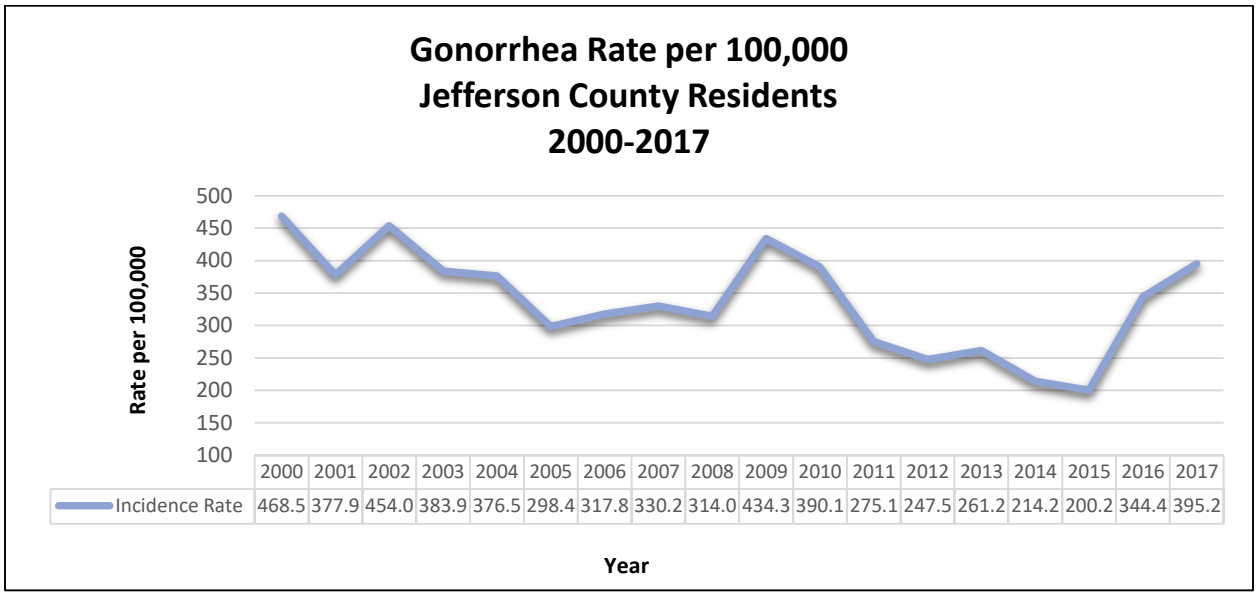


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Incidence Rate	3.6	2.0	1.4	3.3	4.7	14.5	37.3	24.9	27.0	17.3	14.1	10.3	10.2	8.5	8.9	12.3	19.0	15.6	17.1

Among Jefferson County males, the 2018 rate of primary and secondary syphilis was 17.1 per 100,000 population, a rate which is more than double the Healthy People 2020 goal of 6.7 primary and secondary syphilis infections per 100,000 males. The primary and secondary syphilis rate among females was 3.6 per 100,000 which is more than double the Healthy People 2020 goal of 1.3 per 100,000 females.

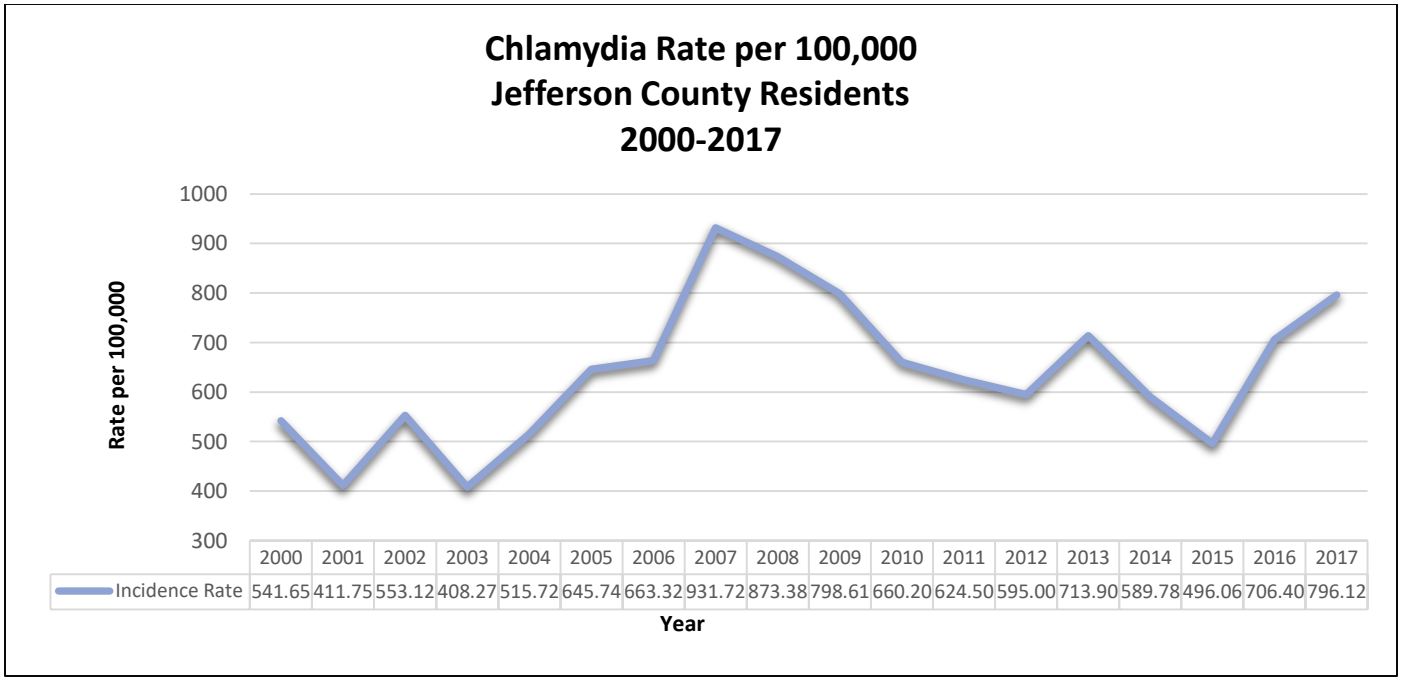
Gonorrhea

Gonorrhea is a sexually transmitted infection that can affect both men and women. Jefferson County's Gonorrhea rates decreased from the 2000 rate of 454 per 100,000 population to the 2017 rate of 395.2 per 100,000 population. Although the 2017 rate is lower, the rate increased from the 2015 low of 200.2 per 100,000 population. Due to reporting inconsistencies, the rates for 2011 and 2012 are not reliable.



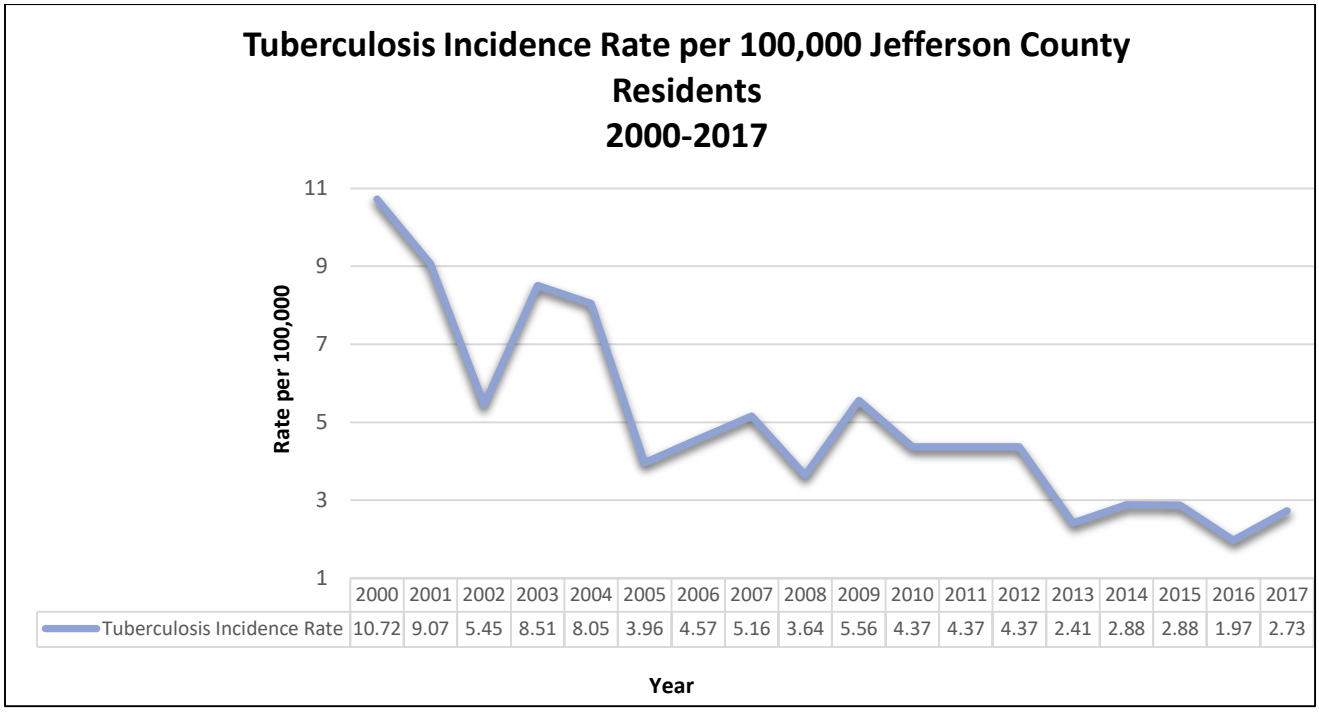
Chlamydia

Chlamydia is the most commonly reported sexually transmitted infection in the United States. If left untreated, Chlamydia infection can result in infertility in females. The 2017 Chlamydia rate for Jefferson County was 796.1 per 100,000 population which is 32% higher than the 2000 rate of 541.7 per 100,000 population. Due to reporting inconsistencies, the Chlamydia rates for 2011 and 2012 are not reliable.

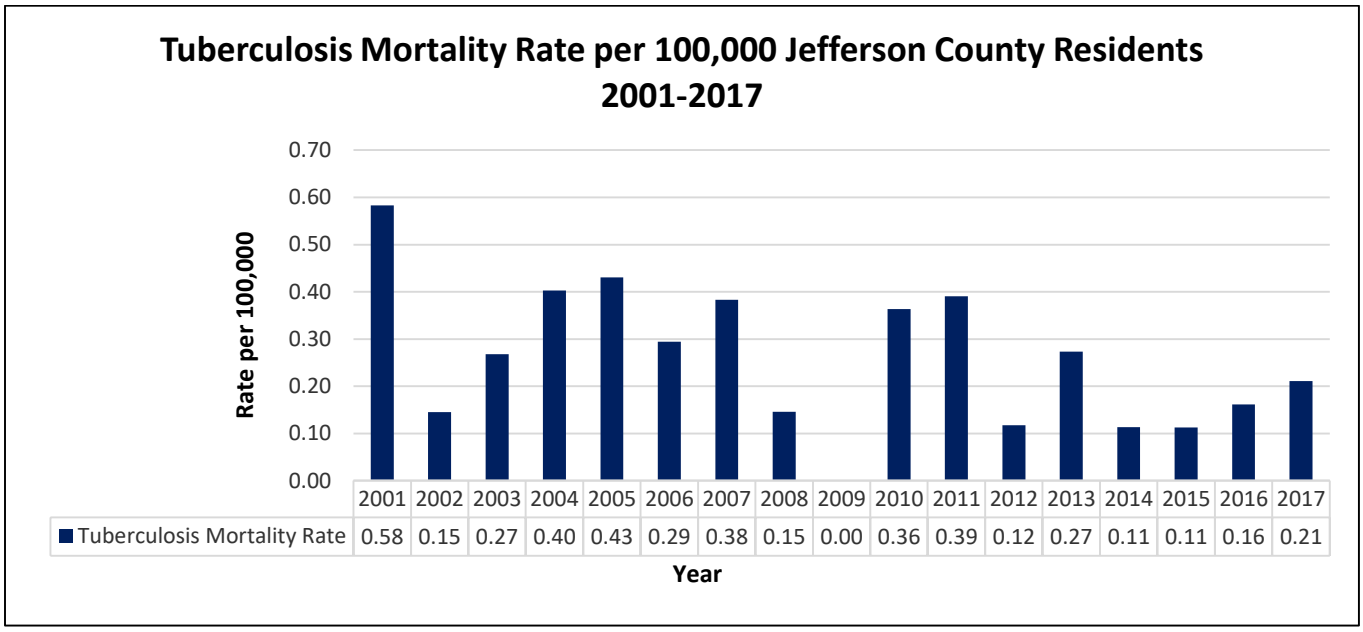


Tuberculosis

Tuberculosis is a bacterial illness that usually affects the lungs, but can affect other parts of the body and be fatal if left untreated. Tuberculosis incidence in Jefferson County declined steadily since 2000. The 2017 Tuberculosis infection rate of 2.7 per 100,000 population is 74.5% lower than the 2000 rate of 10.7 per 100,000 population. Although Tuberculosis mortality rates fluctuate from year to year, there is an overall decreasing trend in incidence for this disease.

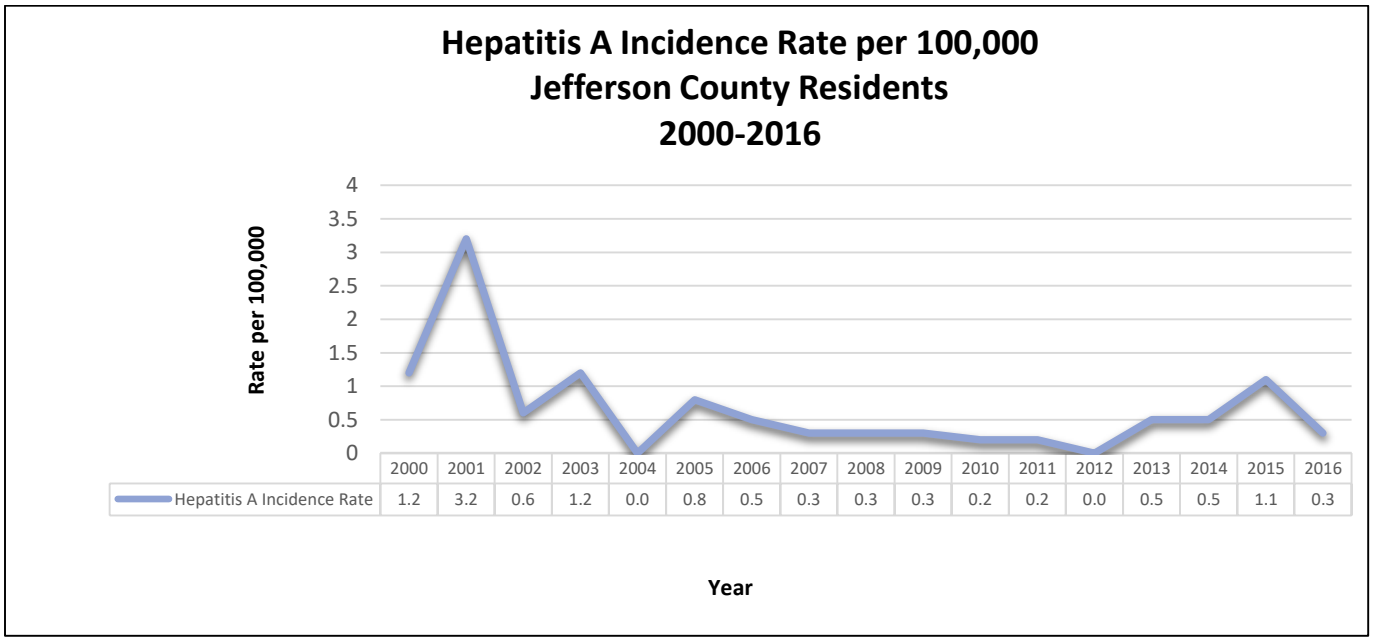


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Tuberculosis Incidence Rate	10.72	9.07	5.45	8.51	8.05	3.96	4.57	5.16	3.64	5.56	4.37	4.37	4.37	2.41	2.88	2.88	1.97	2.73



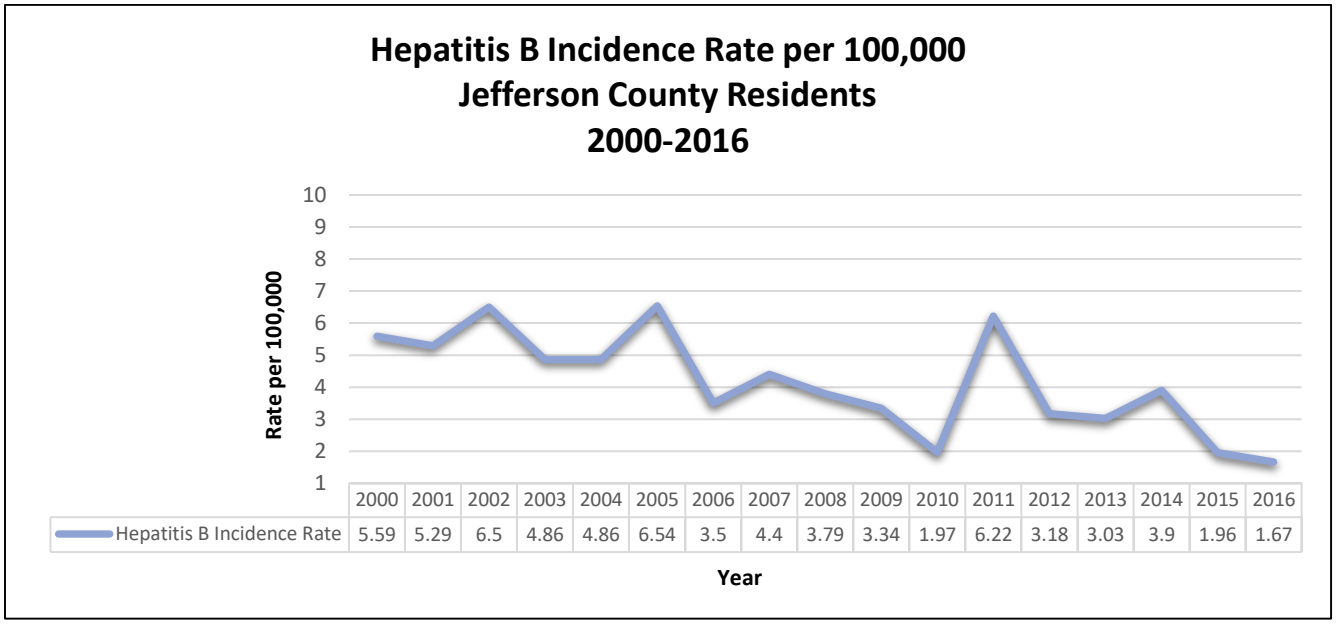
Hepatitis A

Hepatitis A is a viral disease that affects the liver and produces an infection that does not result in chronic infection or chronic liver disease, but can cause acute liver failure. Hepatitis A incidence rates have decreased in Jefferson County from the 2000 rate of 1.2 per 100,000 population. In 2016, the Hepatitis A rate was 0.3 per 100,000 population.



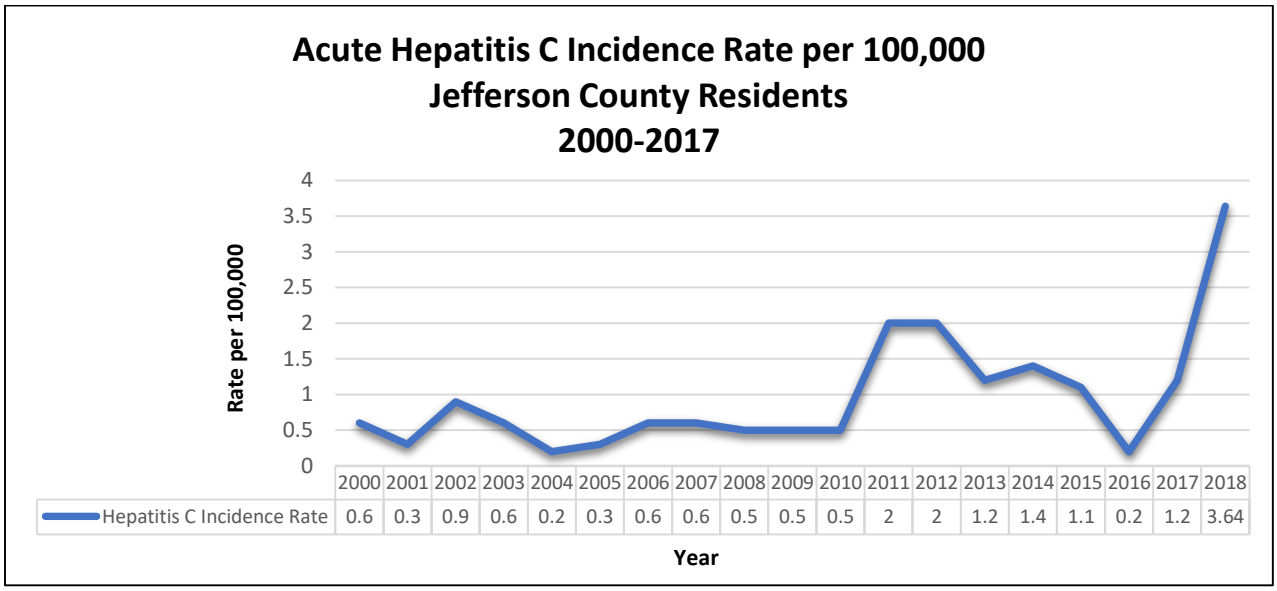
Hepatitis B

Hepatitis B is a viral disease that affects the liver and can result in a chronic or acute liver infection resulting in acute liver failure or death. Hepatitis B incidence rates have decreased by 70.1% from the 2000 rate of 5.6 per 100,000 population to the 2016 rate of 1.7 per 100,000 population.

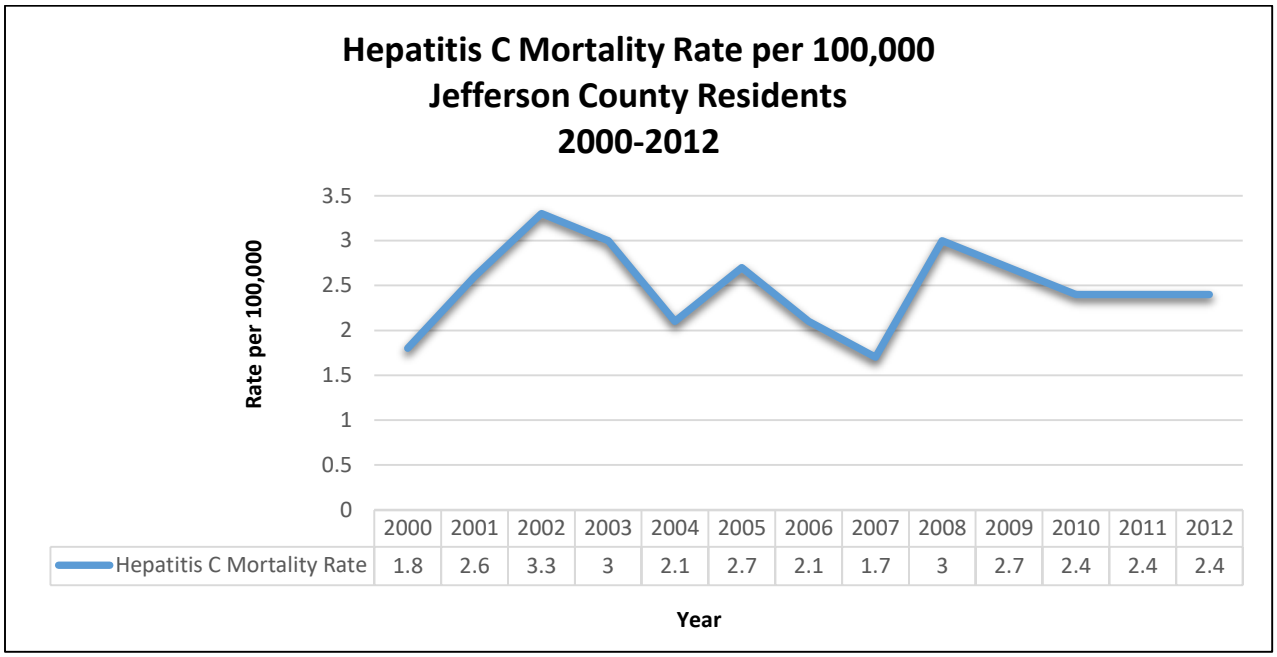


Hepatitis C

Hepatitis C is a blood-borne virus. It is most commonly transmitted by exposure to infected blood through blood transfusions or needle sharing and less commonly through sexual contact. Hepatitis C rates in Jefferson County increased from 0.6 per 100,000 population in 2000 to 3.64 per 100,000 population in 2017. Jefferson County's current Hepatitis C rate is significantly higher than the Healthy People 2020 target of 0.25 per 100,000 population. According to the CDC, recent Hepatitis C increased rates are thought to reflect both true increases in incidence and improved case ascertainment. Hepatitis C mortality rates have fluctuated around 2.4 per 100,000 population from 2010 through 2012, data after 2012 is currently unavailable.

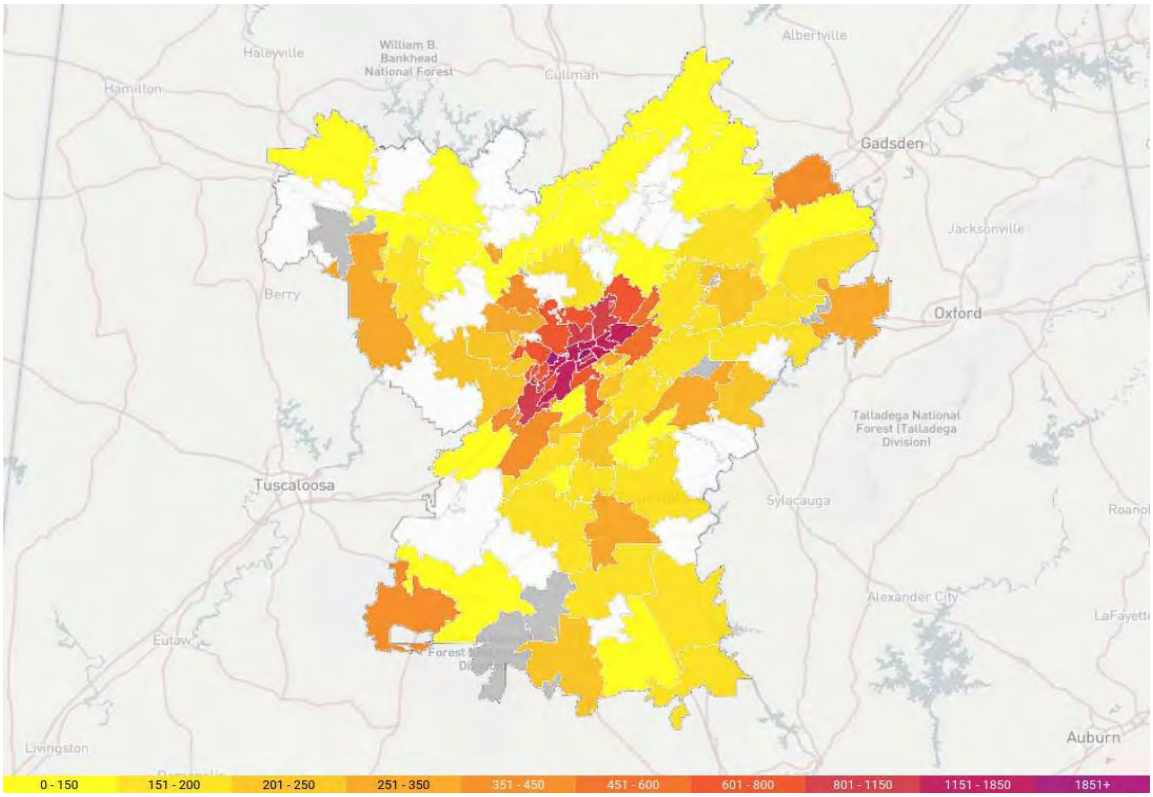


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Hepatitis C Incidence Rate	0.6	0.3	0.9	0.6	0.2	0.3	0.6	0.6	0.5	0.5	0.5	2	2	1.2	1.4	1.1	0.2	1.2	3.64


Hepatitis C Mortality Rate per 100,000
Jefferson County Residents
2000-2012
Rate per 100,000
3.5
3
2.5
2
1.5
1
0.5
0
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012
Hepatitis C Mortality Rate 1.8 2.6 3.3 3 2.1 2.7 2.1 1.7 3 2.7 2.4 2.4 2.4
Year

HIV/AIDS[77]

In 2016, 621 per 100,000 population were living with HIV in Jefferson County. In the 2017 HIV Surveillance Annual Report, Alabama Department of Public Health reported 22.4 per 100,000 population newly diagnosed HIV cases in Jefferson County. Jefferson County was also listed as one of the top five counties in Alabama with the Highest Frequency of Newly Diagnosed HIV cases between 2013 - 2017. In 2017, Aidsvu reported that there are 4,318 people living with HIV in the City of Birmingham; 75.1% of these individuals are male and 24.9% female. The following map presents the City of Birmingham's 2017 rate of population per 100,000 population living with HIV; however, it excludes all other municipalities within Jefferson County.



Data Source: Aidsvu presented by Emory University's Rollins School of Public Health in partnership with Gilead Sciences, Inc. and the Center for AIDS Research at Emory University (CFAR).

Communicable Disease Findings

Immunization rates have decreased among children under age two since 2010, and for annual influenza vaccination in the elderly population. The percentage of the population age 65 and older receiving a pneumococcal vaccination remains stable. Decreasing immunization rates are an indicator of concern as these indicate higher risk for unimmunized individuals and for the Jefferson County population as a whole for contracting preventable diseases.

While the sexually transmitted infection rates for Syphilis have decreased since the 2006 high of 36.2 per 100,000 population, Chlamydia and Gonorrhea rates are increasing. As Chlamydia and Syphilis rates among males are higher than the Healthy People 2020 goal, increased need for treatment and prevention of sexually transmitted diseases is indicated. Among other communicable diseases, Tuberculosis, Hepatitis A and Hepatitis B rates are decreasing in Jefferson County. The increasing rates of Hepatitis C infection is an undesirable finding, especially considering the significant link between Hepatitis C and liver cancer. HIV prevalence decreased from 24.1 to 21.2 per 100,000 population between 2014 and 2016, and this change was statistically significant. However, HIV remains a significant public health concern for Jefferson County. Although the HIV rate has decreased, Jefferson County remains one of the top five counties in Alabama for its rate of newly diagnosed HIV Cases.

Sentinel Events[78]

Sentinel events are unanticipated events that may result in death, illness or injury for a particular population. The indicators in this category represent outbreaks of certain communicable diseases and incidence rates for vaccine preventable illnesses.

Hepatitis A

Hepatitis A is a vaccine-preventable, communicable disease of the liver that is caused by the Hepatitis A virus. It is transmitted person-to-person through the fecal-oral route or consumption of contaminated food or water. Between 2018 and 2019, Hepatitis A cases increased in Jefferson County. In 2018, three cases were reported to the Jefferson County Department of Health (JCDH). In 2019, nine cases were reported, representing a 200% increase from the previous year. Persons at highest risk for Hepatitis A include users of recreational drugs, persons experiencing homelessness, recently incarcerated populations, men with same sex partners and close contacts.

In April 2019, JCDH activated the Incident Command Team for Hepatitis A Outreach and Response. After a Hepatitis A outbreak was declared in Jefferson County, the Incident Command Team engaged community outreach to correctional facilities, substance abuse centers and homeless service providers. A public relations campaign was also launched to increase community awareness. A total of 1,262 Hepatitis A vaccines were administered to eligible populations in Jefferson County to prevent spread of the disease.

Pertussis

Pertussis, or whooping cough, is a vaccine preventable and highly contagious disease causing uncontrollable and violent coughing. Pertussis infection rates in Jefferson County have increased from the 2000 rate of 0.5 per 100,000 population to the 2018 rate of 5.61 per 100,000 population. According to the Centers for Disease Control and Prevention, there are many factors that contribute to Pertussis. Increased disease awareness and improved diagnostic testing has also contributed to the number of whooping cough cases being confirmed and reported. Pertussis is preventable with adequate vaccination.

Measles

There have been no cases of measles, a vaccine preventable and highly contagious respiratory disease that causes fever, cough, runny nose and rash over the entire body, in Jefferson County since 2000. Appropriate vaccination coverage with the Measles, Mumps and Rubella vaccine is a likely reason for the lack of Measles cases.

Mumps

Mumps is a vaccine preventable and highly contagious disease that causes swelling of the salivary gland and is accompanied by fever, muscle aches, headache, fatigue and loss of appetite. In 2018, Jefferson County reported one case of mumps, resulting in an incidence rate of 0.15 per 100,000 population.

Rubella

Rubella is a contagious viral disease which is vaccine preventable. Rubella infection in a pregnant woman can cause birth defects such as deafness, cataracts, heart defects, mental retardation and liver and spleen damage. There have been no reported cases of Rubella in Jefferson County since 2000 which is expected with appropriate Measles, Mumps and Rubella vaccination coverage.

Tetanus

There have been no reported cases of Tetanus in Jefferson County from 2000 to date. Tetanus is a vaccine preventable disease spread through contaminated soil and dust entering the body through breaks in the skin.

Listeriosis

Listeriosis is a disease spread by eating food contaminated with the bacteria *Listeria monocytogenes*. The disease predominately affects older adults, pregnant women, infants, children and individuals with a compromised immune system. In 2018, one case of Listeriosis was reported in Jefferson County, resulting in an incidence rate of 0.15 per 100,000 population.

Diphtheria

Diphtheria is a vaccine preventable disease that was a major cause of illness and death among children prior to the implementation of broad-based vaccination practices. From 2000 through the present, there have been no reported cases of Diphtheria in Jefferson County.

Legionella

Legionella is a bacteria that causes a type of pneumonia and is the result of environmental exposure to the bacteria. In 2018, 18 cases of Legionella were reported in Jefferson County, creating an incidence rate of 2.73 per 100,000 population.

Varicella

Varicella, also known as chickenpox, is a highly contagious, vaccine preventable disease that causes a blister like rash, itching, fatigue and fever. In 2018, ten cases of Varicella were reported in Jefferson County resulting in an incidence rate of 1.52 per 100,000 population.

Meningococcus

Meningococcus refers to any disease caused by the bacteria *Neisseria meningitides*. Infections usually involve swelling of the brain and spinal cord, as well as bloodstream infection. In 2018, there were no Meningococcus cases reported in Jefferson County.

Sentinel Events Findings

Due to the infrequent nature of sentinel events, it is difficult to determine if trends exist. The occurrence of a sentinel event could indicate problems with the local public health system or alert health care providers to trends within the community that affect public health. One such trend is declining immunization rates. As immunization rates continue to decline in Jefferson County, death and illness due to vaccine preventable diseases may increase. This increase has been seen in the rates of Pertussis infection; which remains a concern for Jefferson County.

Community Themes and Strengths Assessment

Jefferson County, Alabama

ASSESSMENT, VISIONING, AND PLANNING
COMMUNITY MATTERS
FOR A HEALTHY JEFFERSON COUNTY

October 2019

Overview of the Community Themes and Strengths Assessment

The Community Themes and Strengths Assessment (CTSA) is one of four assessments completed as part of a community health strategic planning process for Jefferson County called *Community Matters: Assessment, Visioning and Planning for a Healthy Jefferson County, Alabama*. The CTSA identifies community assets and issues, both strengths and weaknesses, important to those who live, learn, work, worship and/or play in Jefferson County, Alabama.

The CTSA is designed to answer the following questions:

- *What is important to the community?*
- *How is quality of life perceived in the community?*
- *What assets does the community have that can be used to improve the community's health?*

Design

The CTSA was completed with a community-driven design and process. Members of the CTSA Sub-committee[1] were selected to mirror the diversity of the community. Data was collected using both online and paper surveys and focus groups. The survey and focus group guide were developed based on Jefferson County's previous CTSA survey, as well as from review of community health surveys developed by local community hospitals, Alabama Department of Public Health and other local health departments in the United States. The CTSA sub-committee met on September 5, 2018 to develop the *Your Opinion Matters!* survey instrument and the focus group guide. Focus group facilitator training was held on September 27, 2018.

Development

The online version of the *Your Opinion Matters!* survey utilized a Survey Monkey® and was available in English and Spanish online from October 2018 through December 2018 in a format accessible to individuals with low vision. The link to the *Your Opinion Matters!* survey was accessible through the Jefferson County Department of Health (JCDH) website, JCDH social media platforms and a variety of community partner websites. Additionally, many community partners and CTSA sub-committee members shared the survey link through business and personal email distribution lists. Paper surveys,

available in English and Spanish, were distributed throughout JCDH Health Centers, community partner facilities, community events, community meetings and informal gatherings. Additionally, JCDH provided the survey verbally for individuals with low vision and low literacy, and offered interpreter services for survey completion for persons requiring sign language or speaking languages other than English or Spanish. The *Your Opinion Matters!* survey asked questions about quality of life indicators within the domains of the physical environment, education, health care access, public safety, economics, the community, programs, services, support networks, quality of life and chronic health problems in Jefferson County.

The primary process used to collect qualitative data for the CTSA was a series of 15 focus groups and one community conversation. Focus groups were conducted by trained facilitators to obtain more detailed information concerning resident perceptions of quality of life and health including perceived assets, strengths and weaknesses of Jefferson County. The questions asked in the focus groups were related to both positive and negative changes that Jefferson County residents experienced during the past five years, what residents would like to see changed in the next five years, community assets, equity and access to services, key organizations that help residents, opportunities for improvement in Jefferson County, the health of the county, access to health care, and environmental health concerns.

To analyze the focus group data, the team from the University of Alabama at Birmingham (UAB) was provided with focus group facilitation guides, notes, and audio recordings from the CTSA and the responses to the qualitative questions were analyzed. Each set of data was reviewed to develop a list of broad codes or themes identified in each group. The UAB team achieved consensus on the overall themes present in each data collection method.

Once consensus was achieved around themes, the frequency with which each theme was documented was calculated for each collection method. For example, “transportation” was noted in approximately 94% of Community Themes and Strengths Assessment sessions, and 18.5% of all survey comments. The themes were ranked by frequency of mention in each method and the rankings were combined to generate an overall ranking across methods. Each method was weighted equally in the calculation of overall ranking.

Sampling

A total of 1,360 *Your Opinion Matters!* surveys (324 paper and 1,036 online) were received, representing more than triple the calculated sample size requirement of 384. The fifteen focus groups and one community conversation engaged over 200 individuals from urban and suburban locations, as well as individuals from special populations within Jefferson County.

In addition to the transcripts from the focus groups, the responses to open-ended comments from the *Your Opinion Matters!* survey were analyzed as an additional source of qualitative data.

The demographic profile of Y*our Opinion Matters!* survey participants is shown in Figures 1- 9. The survey, targeting adults, included respondents ranging from 18 to 88 years of age. Almost three-quarters (74.4%) of the surveys were completed by females; the percent of female county residents, however, is 52.7%[1]. Based on race, the survey captured data from a lesser percentage of white residents at 48.7% than live in Jefferson County (53.2% [2]). Black or African Americans, who represent 43.4% [3] of Jefferson County's population, represented 36.4% of the survey participants. Nearly ten percent (9.5%) of survey respondents were individuals of other races, including Asian and American Indian, a percentage higher than the 3.3% [4-6] of county residents self-identifying in these race categories. Slightly over 5% of survey respondents chose not to provide his or her race. Additionally, survey respondents could select more than one racial category.

By ethnicity, 8.8% of survey respondents self-identified as Hispanic/Latino although 3.9%[9] of the county's population are of Hispanic/Latino ethnicity. The distribution of survey completion by individuals with a bachelor's degree or higher was substantially greater at 62.8% than the 33.3% [16] of county residents with a bachelor's degree or higher level of education. Individuals with less than a high school education comprise 10.1% [16] of the county's population, but represented only 1.4% of survey respondents. The percentage of county residents without health care insurance coverage is 9.2% [17], whereas 5.4% of survey respondents indicated having no health insurance. Of note, respondents could select more than one insurance type. Among survey respondents, 14.5% indicated having a disability, a percentage slightly lower than the 17.3%[19] Jefferson County residents living with a disability.

The profile of the survey respondents should be considered in the evaluation of the generalizability of the data as the demographic profile of survey respondents and residents of Jefferson County vary.

Figure 1: Age Categories of Survey Respondents

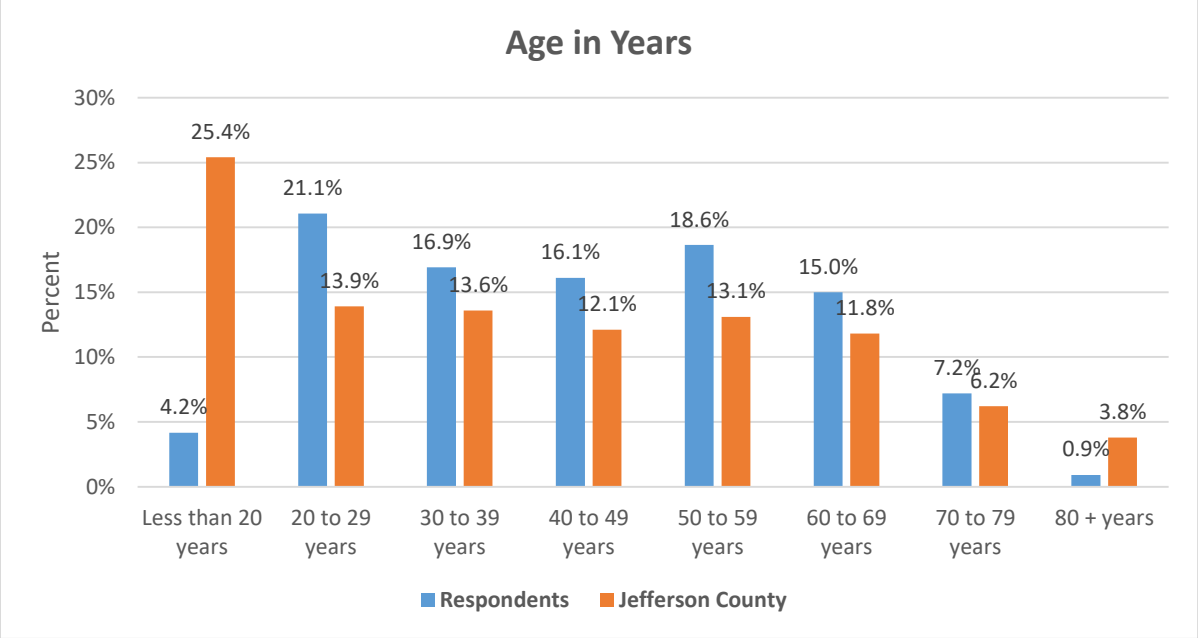


Figure 2: Gender of Survey Respondents

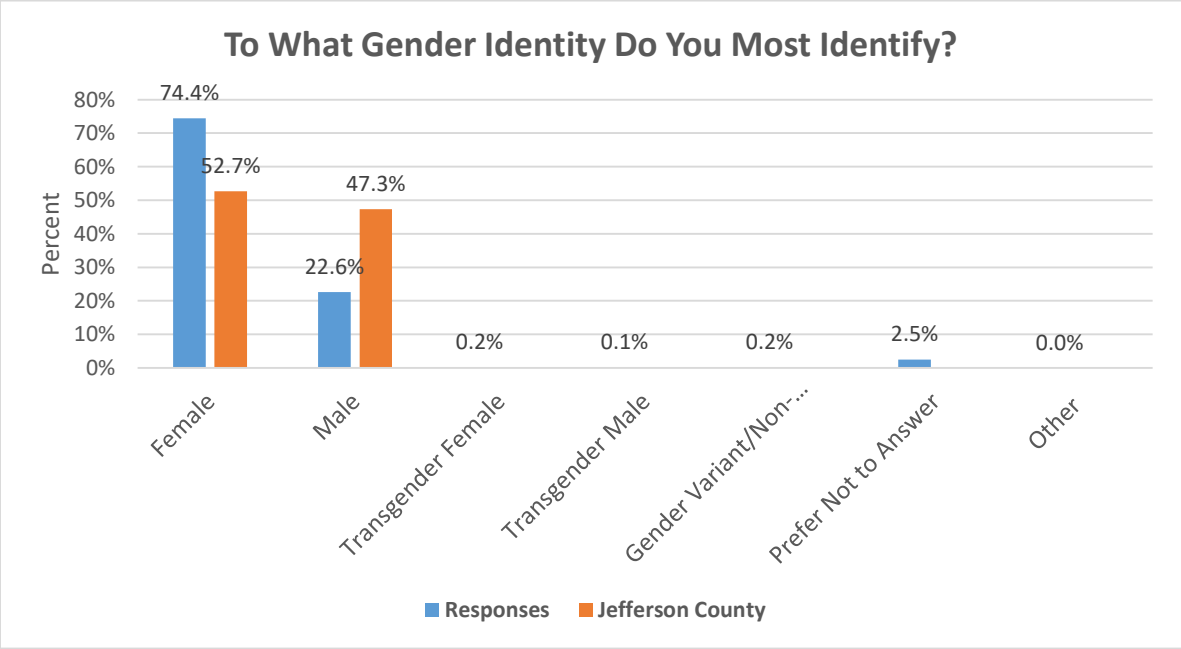
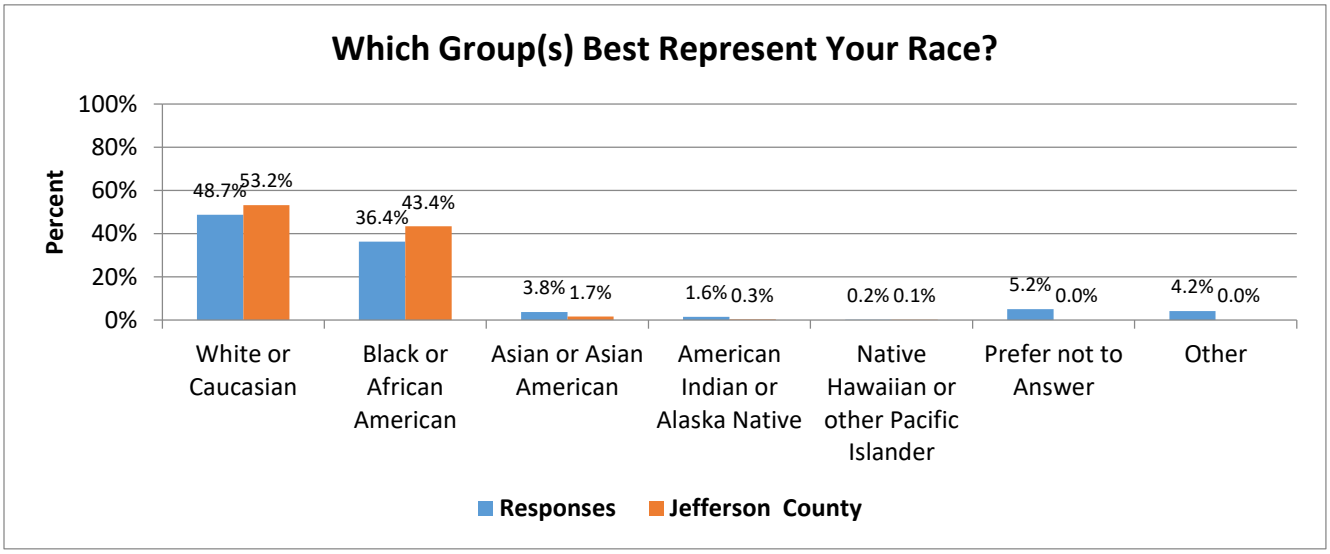


Figure 3: Race of Survey Respondents



Other races provided by survey respondents included three individuals who responded "American," two who responded as "Hispanic/Latino," and one respondent for each of the following: African American/Native American/Irish, Cuban, Human, Inter-racial, Italian American, Mexican, Middle Eastern, Mixed, More than one "race", Multi-racial, Negro, Pakistani, and Puerto Rican.

Figure 4: Ethnicity of Survey Respondents

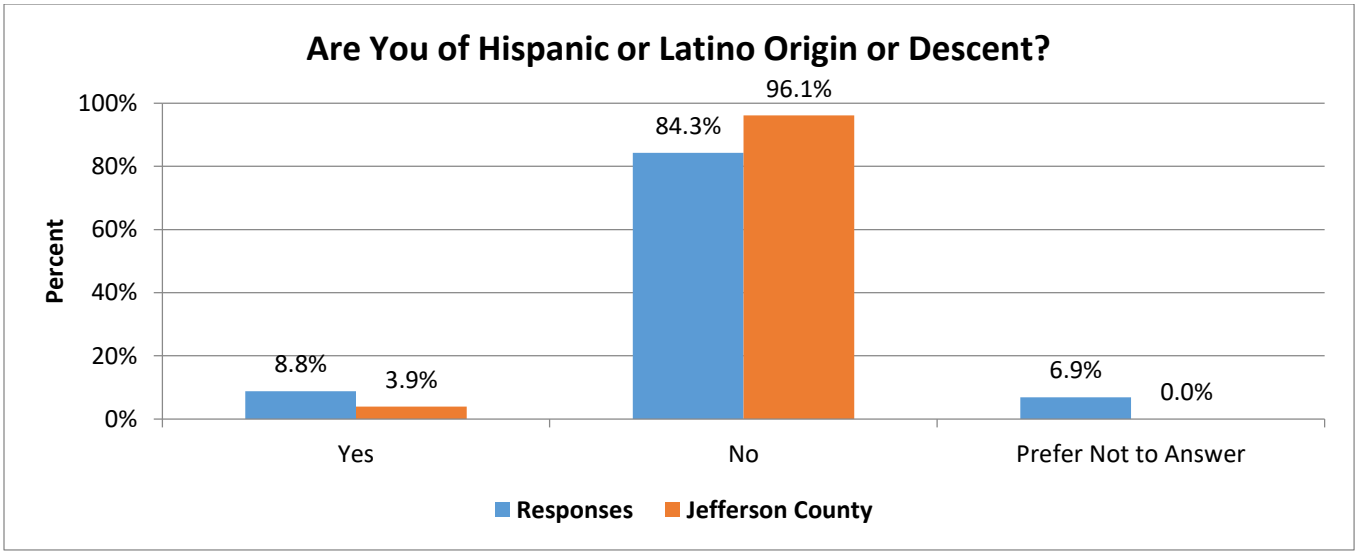


Figure 5: Educational Attainment of Survey Respondents

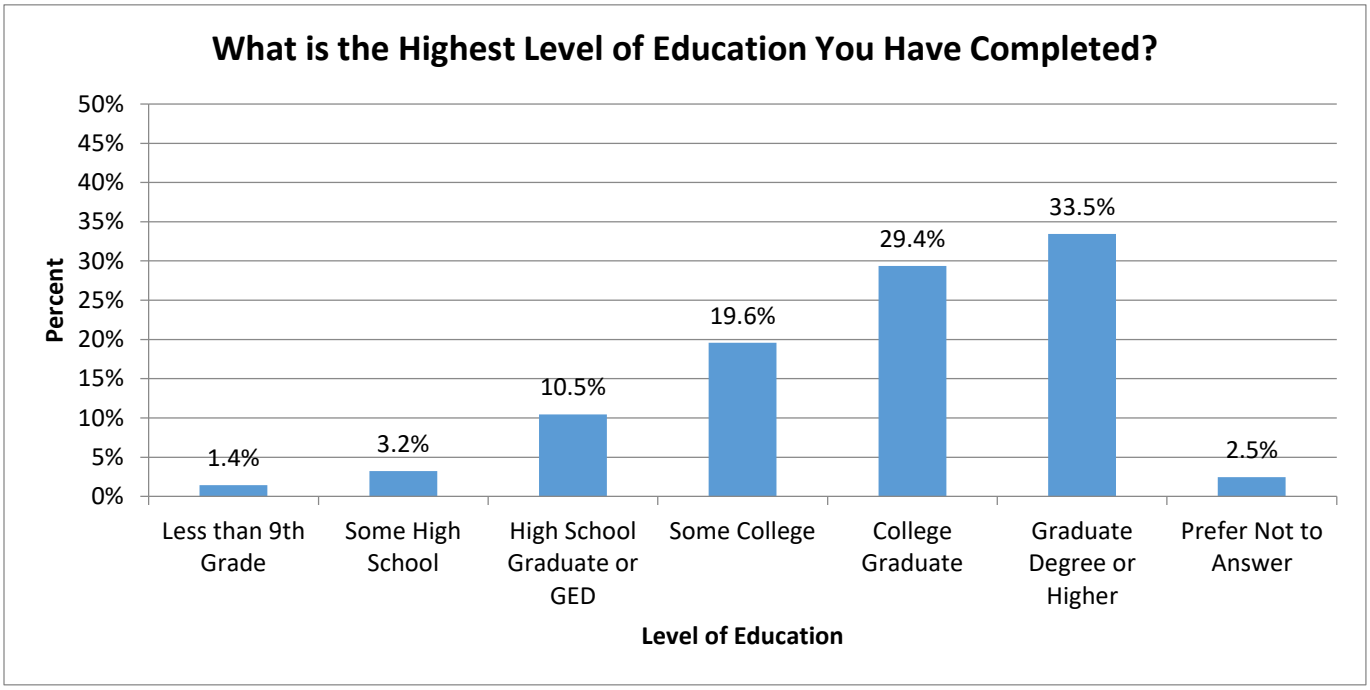
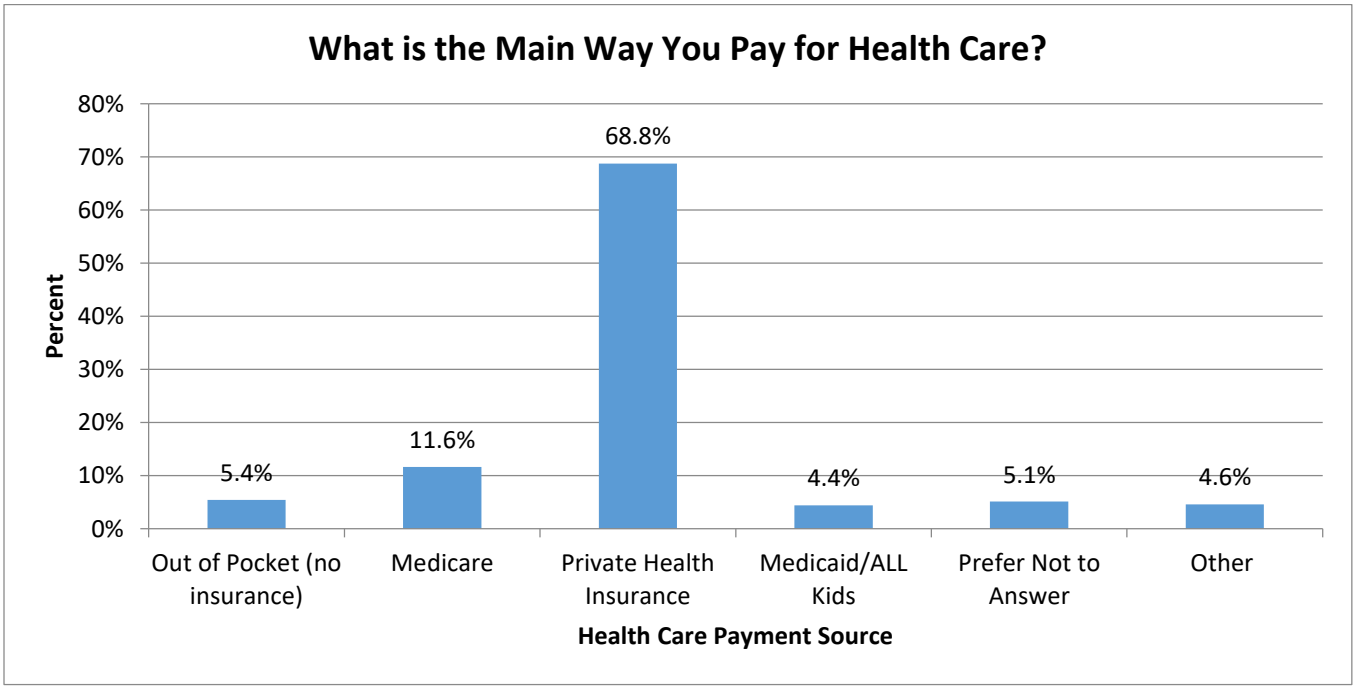
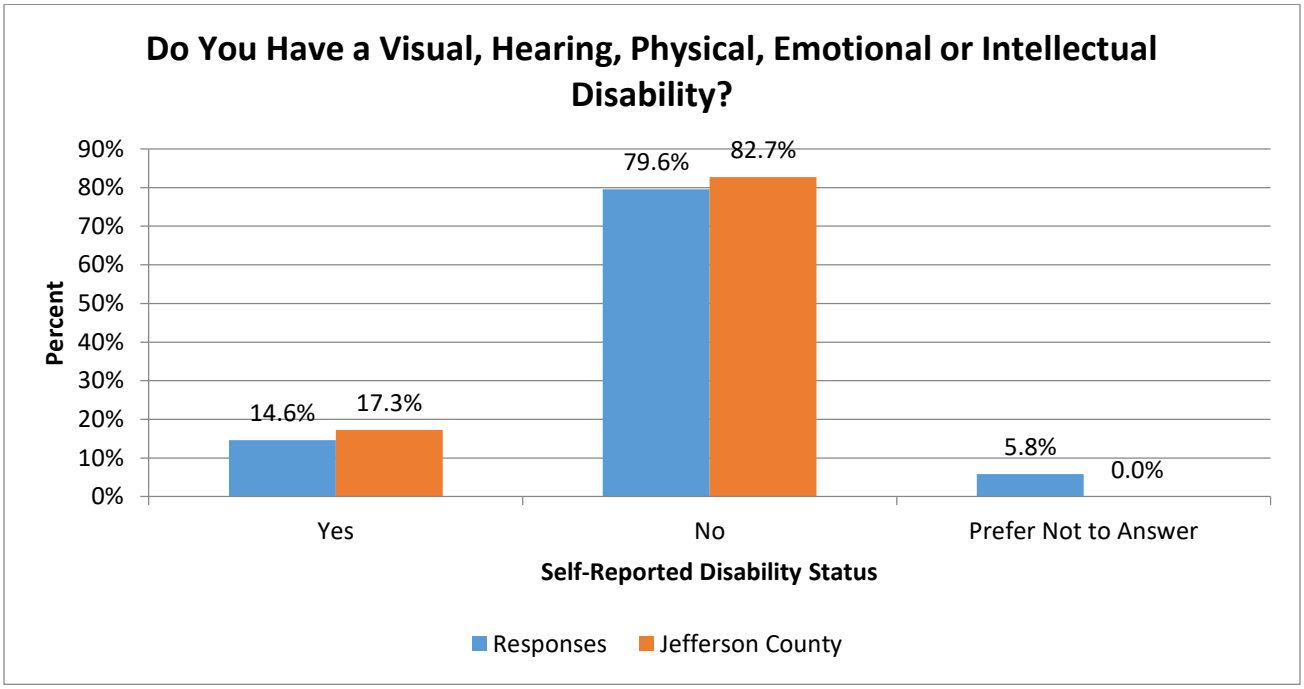


Figure 6: Insurance Status of Survey Respondents



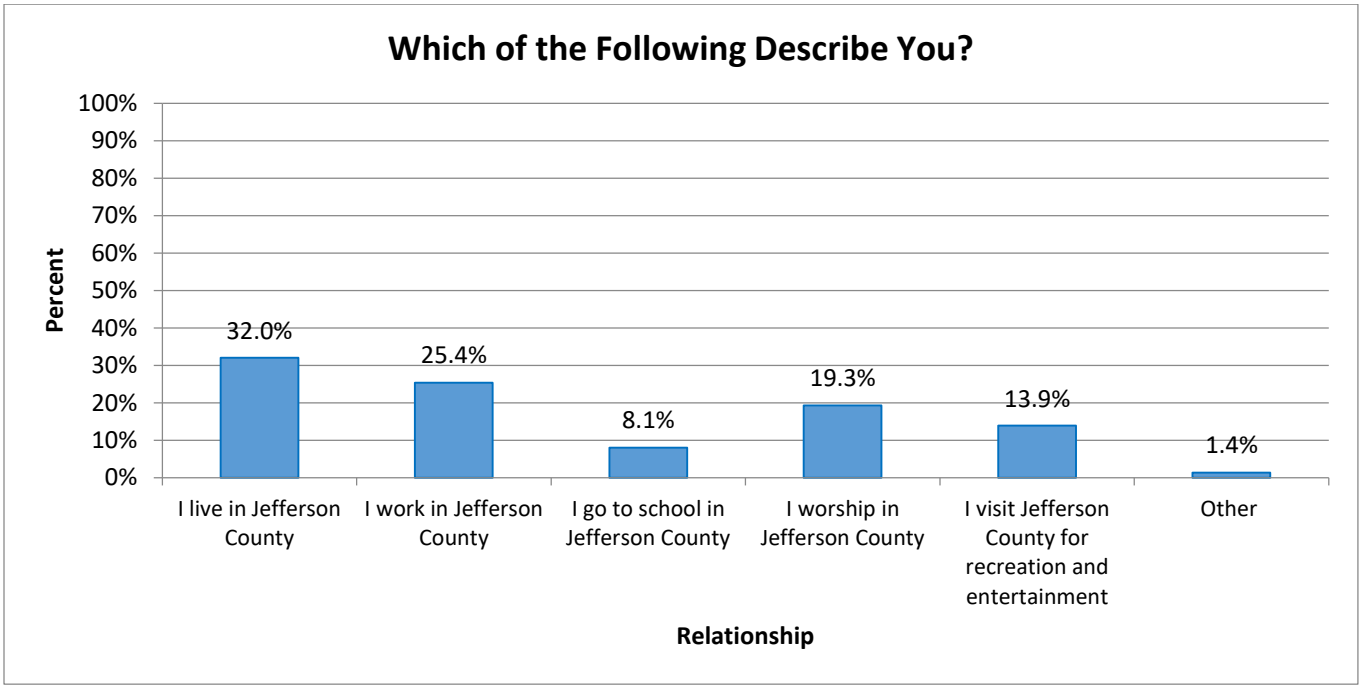
Other mechanisms for health care payment provided by survey respondents were as follows: Tricare for Life (8), parents insurance (7), the Veterans Administration, Flex Pay, respondent doesn't have any, individual health care plan, Medicaid, Aetna, Kaiser Permanente, Employment, Student, respondent's job provided insurance, Medicare, school, ACA, Blue Advantage, Veteran Care, ALL Kids, and ISD.

Figure 7: Disability Status of Survey Respondents



Approximately 32% of survey respondents acknowledged residing in Jefferson County, and approximately 25% of respondents work in Jefferson County.

Figure 8: Relationship to Jefferson County



Other relationships included receiving medical care, shopping, volunteering, recreating, owning a business, having children or grandchildren in schools or participating in activities in Jefferson County.

"All my medical problems are handled in Jefferson County."

"I was born in Jefferson County."

"My kids go to school in Jefferson County."

"I am active in community activities."

"I went to school in Jefferson County."

"I shop in Jefferson County."

"I volunteer in Jefferson County."

"I am a part time resident."

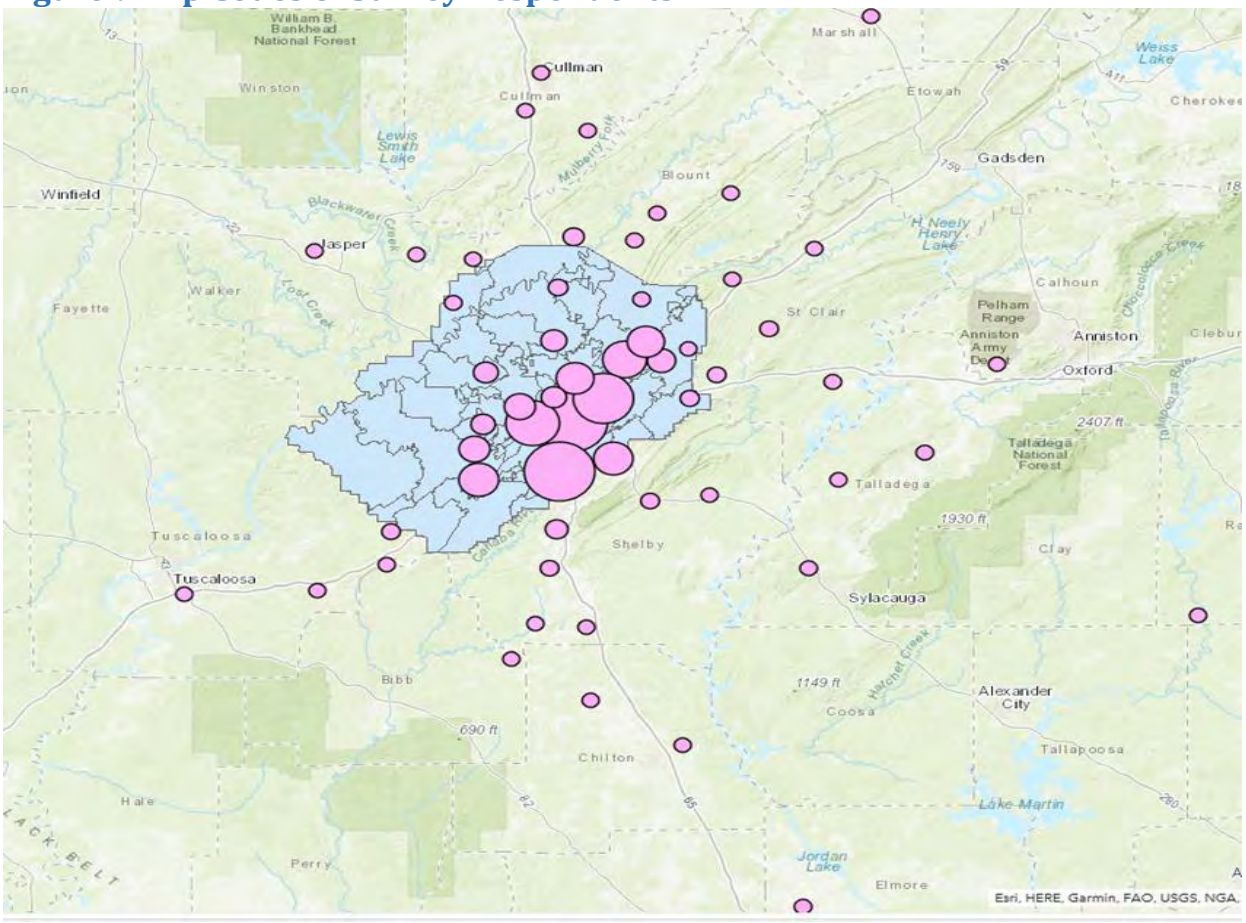
"I used to live in Jefferson County."

"I use Jefferson County for outdoor recreation."

"I own a small business in Jefferson County."

Figure 9 is a map of the zip codes of the respondents to the survey.

Figure 9: Zip Codes of Survey Respondents

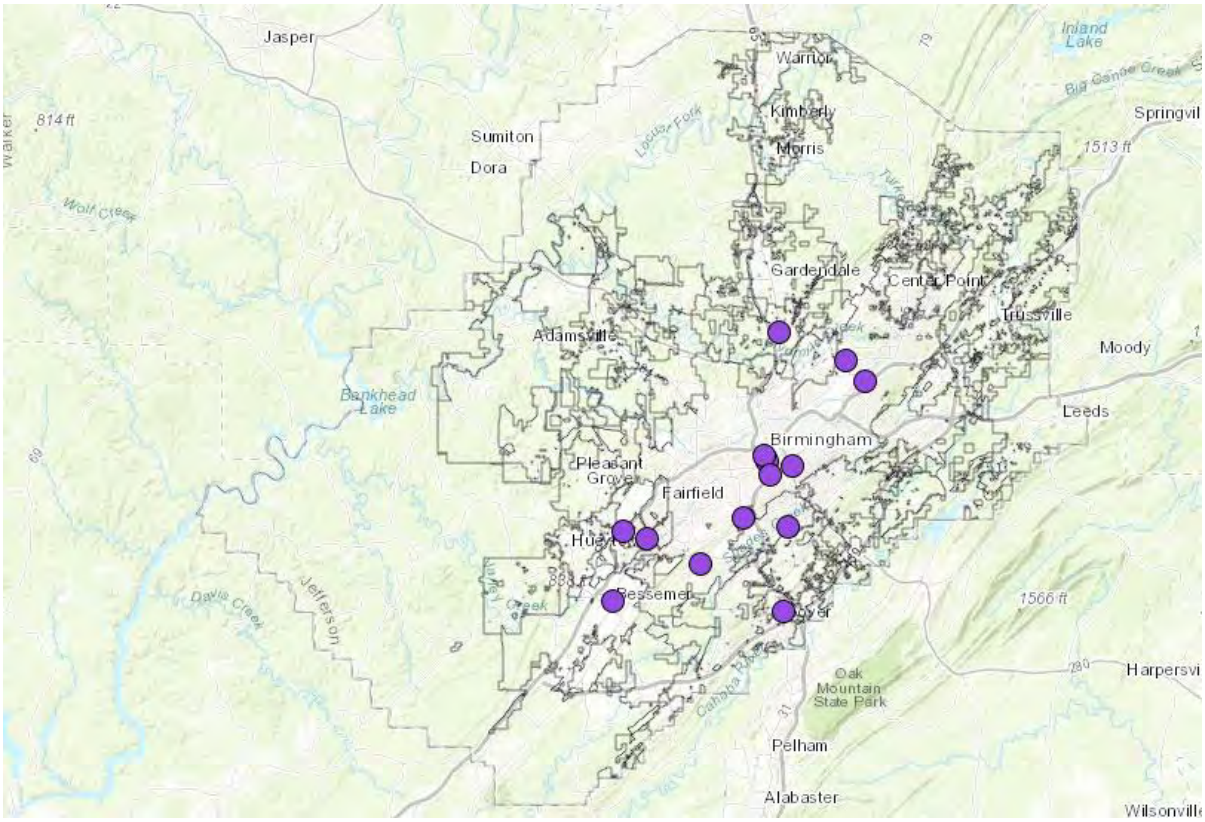


Focus Groups

The CTSA focus groups, conducted in urban (Birmingham, Brownsville, East Lake and Midfield) and suburban (Bessemer, Fultondale, Homewood and Hoover) locations within Jefferson County included two focus groups conducted with Spanish-speaking residents, two groups conducted with individuals living with a disability, two focus groups and one community conversation completed with the senior sub-population, and one focus group each with formerly incarcerated individuals and the homeless sub-

population. Over 200 individuals participated in focus groups informing the assessment. Figure 10 displays the geographic location of the focus groups and community conversation.

Figure 10: Focus Group and Community Conversation Locations



Your Opinion Matters! Survey Findings

The *Your Opinion Matters!* survey findings indicate that Jefferson County residents are most and least satisfied with the aspects of health and quality of life identified in Figure 11 and Tables 1 and 2. Satisfaction was rated on a five-point Likert-type scale with a score of one (1) representing very dissatisfied, three (3) representing neutral and five (5) representing very satisfied.

Figure 11: Satisfaction with Quality of Life Indicators by *Your Opinion Matters!* Survey Respondents

Community Themes and Strengths Assessment

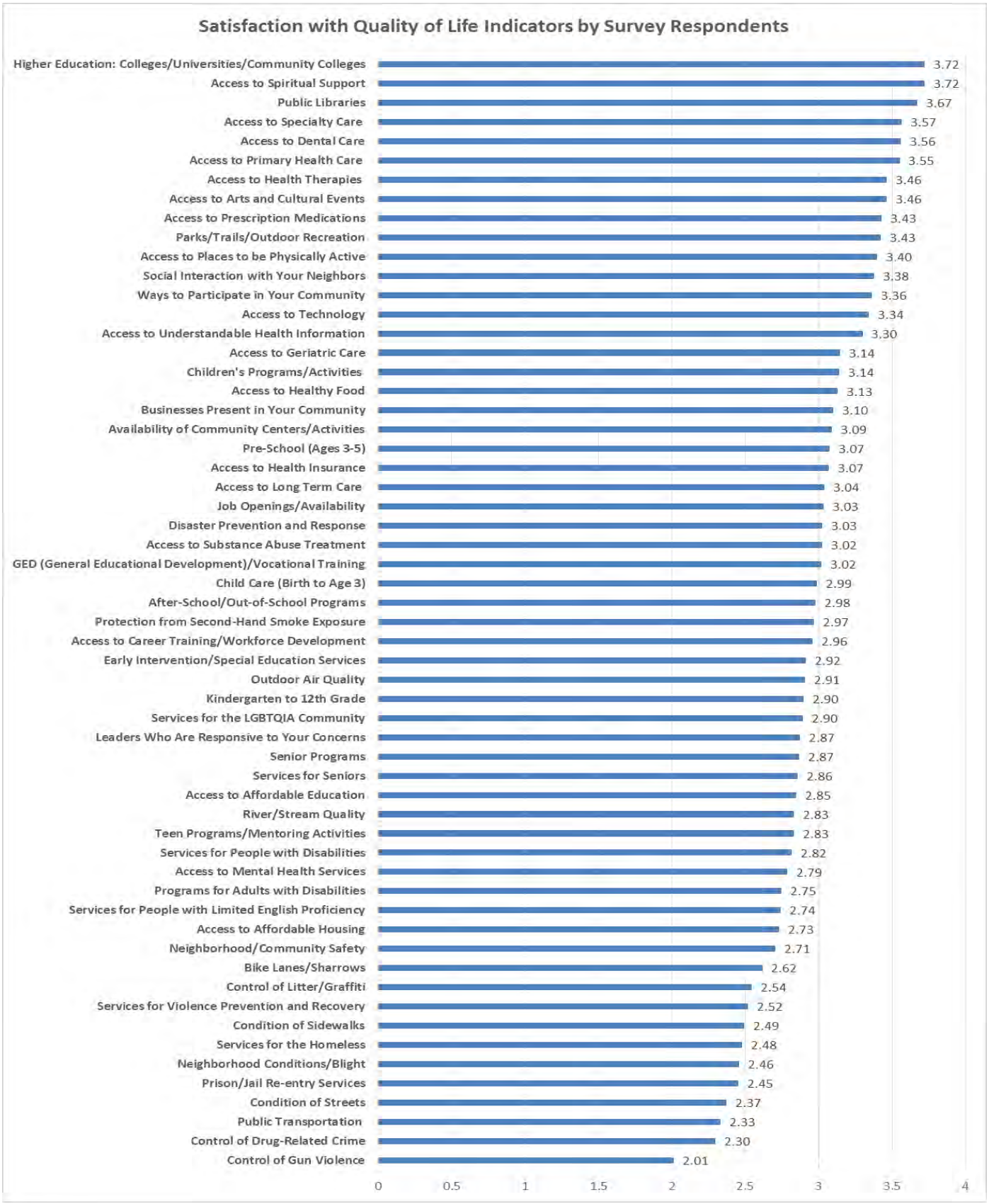


Table 1: Aspects of Health and Quality of Life with Highest Respondent Satisfaction Scores

Most Satisfied	Mean Score
Higher Education: Colleges/Universities/Community Colleges	3.72
Access to Spiritual Support	3.72
Public Libraries	3.67
Access to Specialty Care	3.57
Access to Dental Care	3.56
Access to Primary Health Care	3.55
Access to Health Therapies (Physical Therapy, Speech Therapy, etc.)	3.46
Access to Arts and Cultural Events	3.46
Access to Prescription Medications	3.43
Parks/Trails/Outdoor Recreation	3.43

Table 2: Aspects of Health and Quality of Life with Lowest Respondent Satisfaction Scores

Least Satisfied	Mean Score
Control of Gun Violence	2.01
Control of Drug-related Crime	2.30
Public Transportation	2.33
Condition of Streets	2.37
Prison/Jail Re-entry Services	2.45
Neighborhood Conditions/Blight	2.46
Services for the Homeless	2.48
Condition of Sidewalks	2.49
Services for Violence Prevention and Recovery	2.52
Control of Litter/Graffiti	2.54

Survey respondents rated the importance of each domain of quality of life and health indicator. Figure 12 and Tables 3 and 4 indicate the items that survey respondents rated as most and least important. Importance was rated on a three-point scale with one (1) representing low importance, two (2) representing medium importance, and three (3) representing high importance.

Figure 12: Importance of Quality of Life Indicators by Survey Respondents

Community Themes and Strengths Assessment

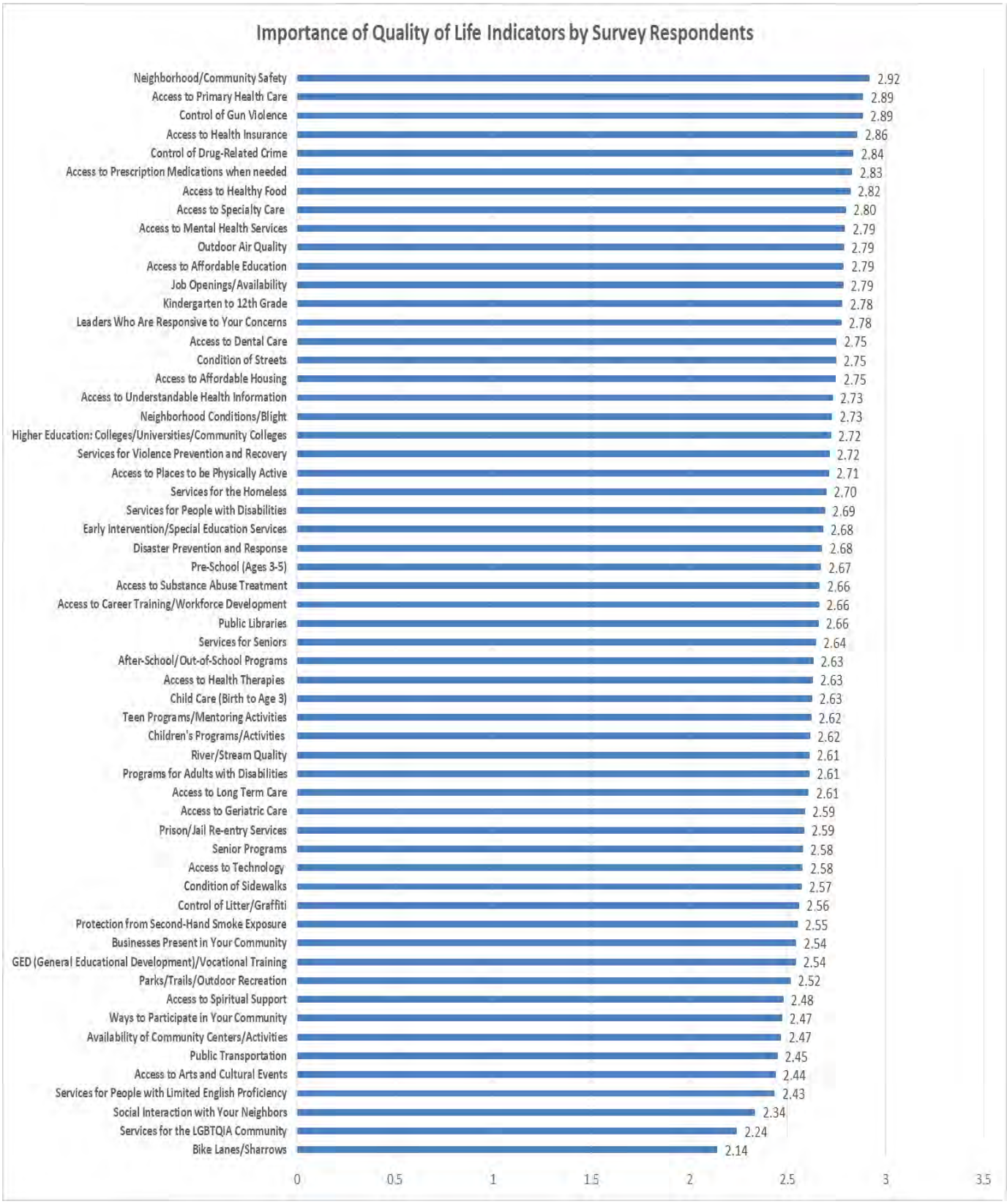


Table 3: Aspects of Health and Quality of Life Survey Respondents Indicated as Most Important

Most Important Aspects of Health and Quality of Life	Mean Score
Neighborhood/Community Safety	2.92
Access to Primary Health Care	2.89
Control of Gun Violence	2.89
Access to Health Insurance	2.86
Control of Drug-related Crime	2.84
Access to Prescription Medications when needed	2.83
Access to Healthy Food	2.82
Access to Specialty Care	2.80
Access to Mental Health Services	2.79
Outdoor Air Quality	2.79

Table 4: Aspects of Health and Quality of Life Survey Respondents Indicated as Least Important

Least Important	Mean Score
Bike Lanes/Sharrows	2.14
Services for the LGBTQIA Community	2.24
Social Interaction with Your Neighbors	2.33
Services for People with Limited English Proficiency	2.43
Access to Arts and Cultural Events	2.44
Public Transportation	2.45
Availability of Community Centers/Activities	2.47
Ways to Participate in Your Community	2.47
Access to Spiritual Support	2.48
Parks/Trails/Outdoor Recreation	2.52

The *Your Opinion Matters!* survey requested respondents identify the health conditions of most concern for Jefferson County. Respondents were able to select multiple health conditions. The health conditions most commonly identified are listed in ranked order in Table 5.

Table 5: Top Health Conditions

Condition
Obesity
Drug/Alcohol/Opioid Abuse
Diabetes
Homicide
Mental/Emotional/Behavioral Problems
High Blood Pressure
Stress
Tobacco Use
Heart Disease
Sexually Transmitted Infections
Cancer

The quantitative information collected from the *Your Opinion Matters!* survey identified aspects of health and quality of life important to the community and categorized respondent's perception of quality of life in Jefferson County. The CTSA also collected qualitative data through focus groups, a community conversation and through the open ended responses to survey questions. From analysis of the qualitative data there were 15 themes identified.

Table 6: Top Themes Identified from CTSA Qualitative Data

Identified Themes
Transportation
Access to Services
Crime/Violence
Mental Health
Environmental Concerns
Affordable/Accessible Housing
Infrastructure
Education
Government and Political Leadership
Blight
Shifting Demographics
Biases
Job Opportunities and Training
Food System
Drugs/Opioid Crisis

Specific Results by Theme and Topic

Transportation

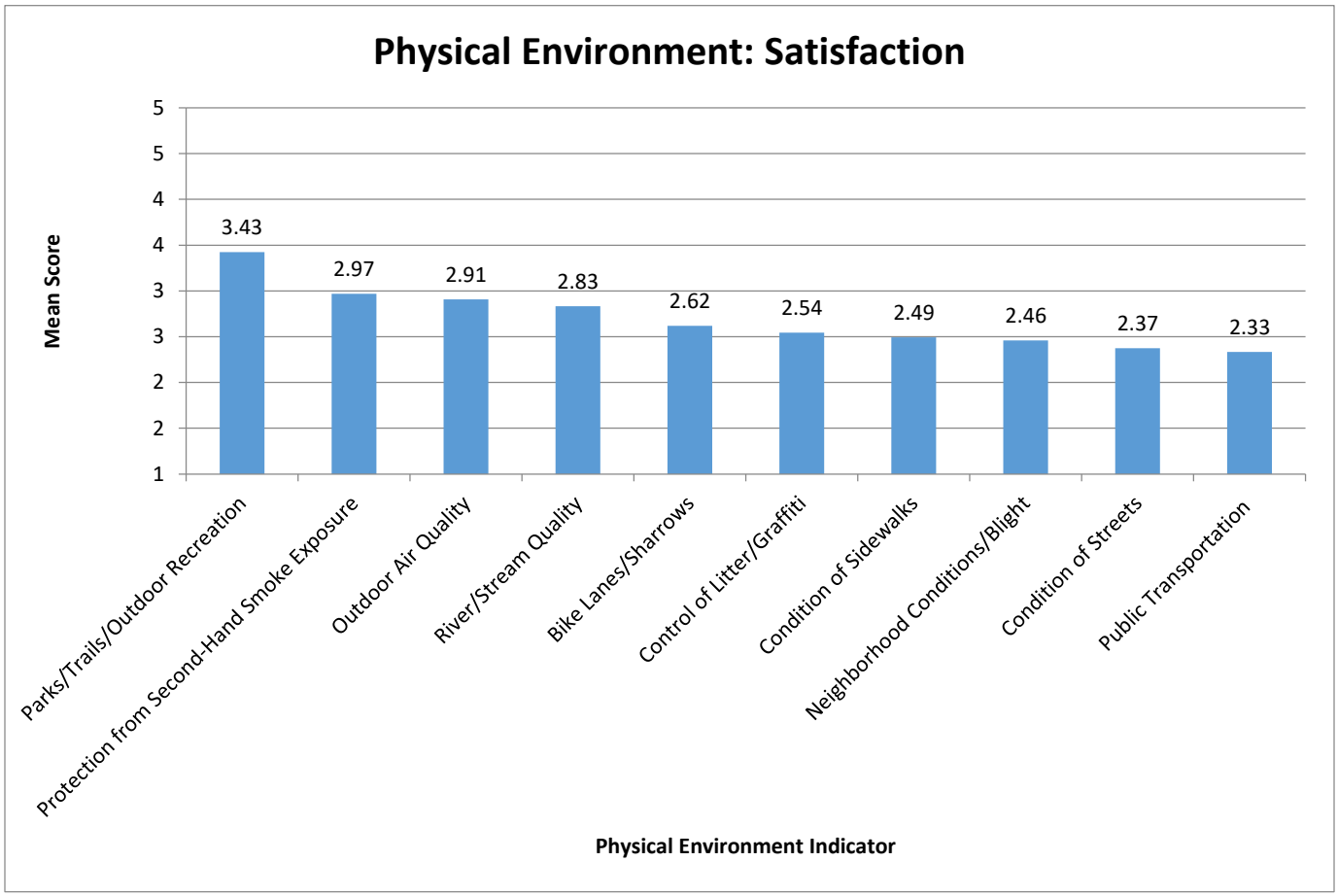
The quality, availability and accessibility of reliable transportation was the most commonly identified theme across the CTSA. Transportation was noted as essential to economic health (allowing travel to work), physical and mental health (facilitating access to medical providers, grocery stores and other services), and spiritual fulfillment (connecting to religious facilities and family).

Transportation Strengths: Transportation was deemed by CTSA participants as critical for supporting economic health, enabling access to physical and mental health care, and connecting individuals to social support systems. With recent improvements to some roads and bridges within Jefferson County, traffic flow and congestion in areas within the county were noted to have improved.

Transportation Weaknesses: Jefferson County's current transportation system was indicated by CTSA participants to inhibit access to jobs, education, health care and support services especially for the poor and those with disabilities. A timely, safe and well-maintained public transit system is deemed as needed to serve all of Jefferson County. Current Birmingham Jefferson County Transportation Authority (BJCTA) bus routes were stated as inadequate in meeting the transportation needs of residents, especially those without personal vehicles. Many bus shelters were noted to need repair and maintenance. Altered traffic patterns in some areas of Jefferson County have placed large trucks on smaller roads, creating perceived increased traffic congestion and decreased safety.

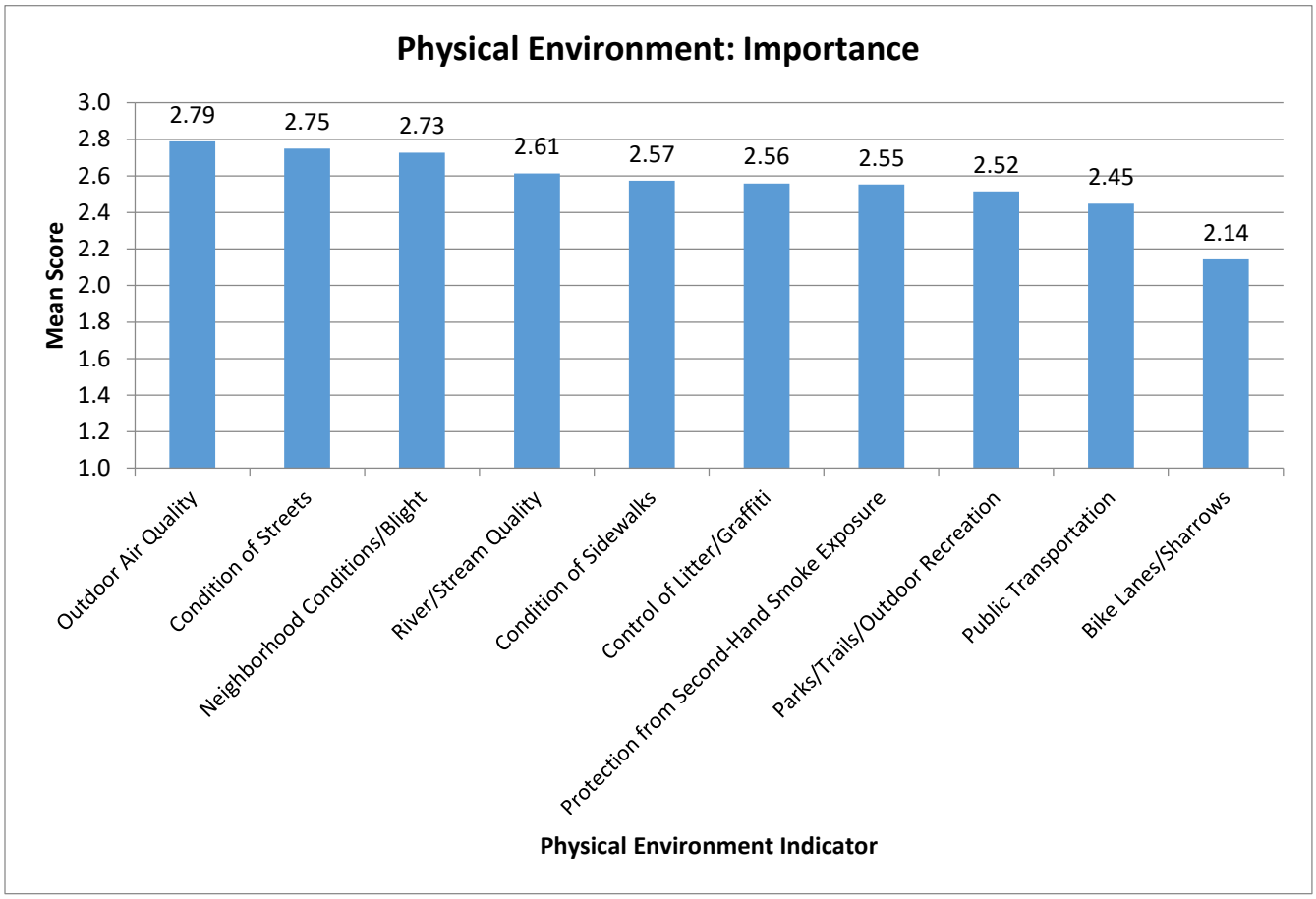
Overall, *Your Opinion Matters!* survey respondents scored transportation low in satisfaction, with a score of dissatisfied (2.33), both overall and within the Physical Environment survey domain.

Figure 13: Satisfaction with Physical Environment Indicators



Transportation scored lower in importance both overall and within the Physical Environment domain with a score of medium Importance (2.45). Overall, survey respondents indicated dissatisfaction with the current public transportation in Jefferson County, but did not feel it was an indicator of high importance.

Figure 14: Importance of Physical Environment Quality of Life Indicators



Access to Services

Respondents identified "access to services" as the second most common theme in the CTSA. Services include affordable health care, affordable medications, efficient and effective service coordination, and the need for Medicaid expansion.

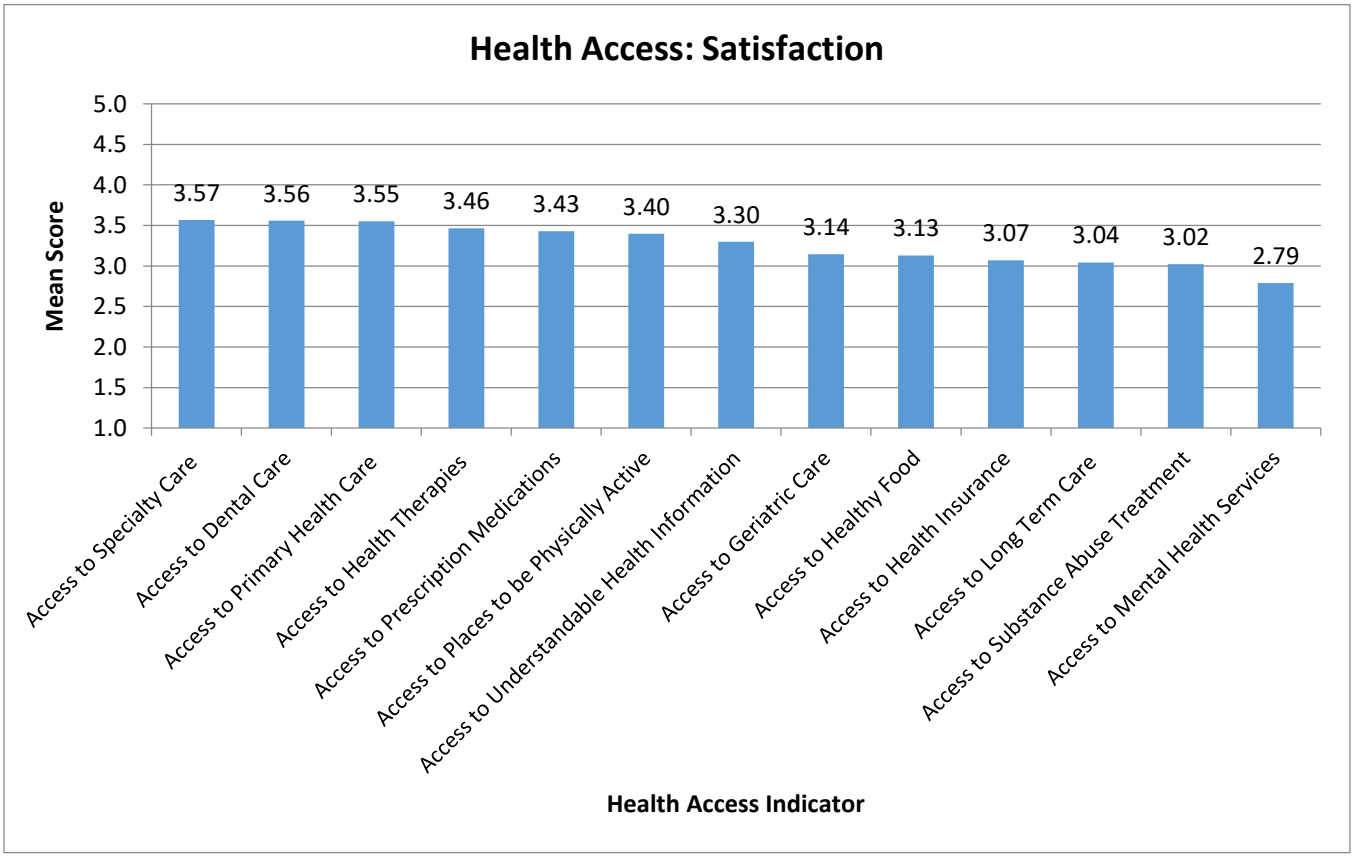
Access to Services Strengths: Accessible and equitable access to health care services, prescription medications, mental health care and other supportive services were identified as a key factors in health and quality of life by CTSA participants. There were numerous organizations and individuals within Jefferson County identified as providers of high quality and needed services to the community.

Access to Services Weaknesses: Without equitable access and affordability of quality health care and

other services across Jefferson County, many people indicated being unable to receive services, especially mental health care, childcare, and to obtain prescription medications. Individuals living in the rural areas of the county reported difficulty accessing multiple services. Specific populations, especially the Spanish-speaking sub-population, racial and ethnic minorities, the homeless, individuals living with a disability and seniors reported feeling unwelcome when accessing health care and other services in Jefferson County. Care coordination and service navigation were also noted as specific needs for seniors, the homeless, formerly incarcerated individuals and individuals with living with a disability.

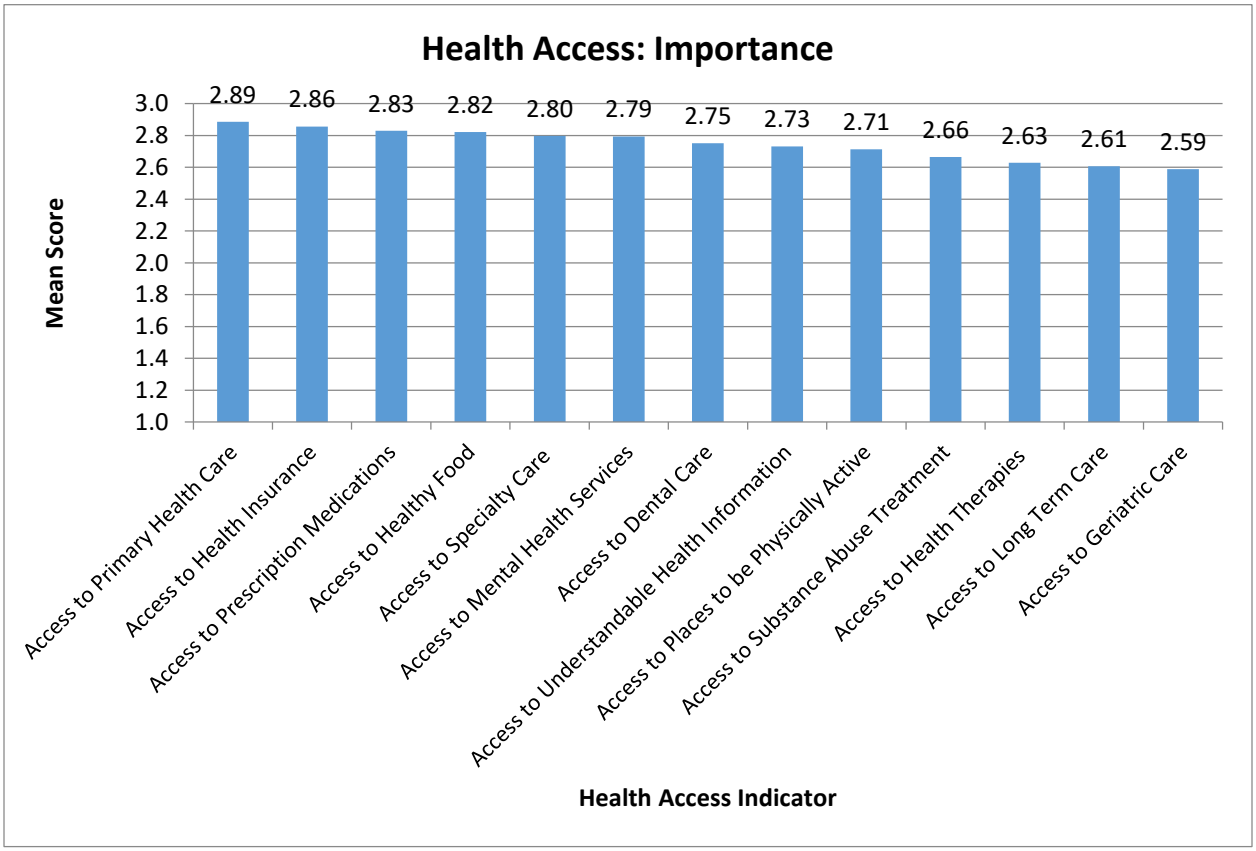
In the *Your Opinion Matters!* survey results, respondents indicated highest satisfaction with access to specialty care, dental care and primary health care within the Health Access domain. Respondents were least satisfied with access to mental health services, substance abuse treatment and long term care.

Figure 16: Satisfaction with Health Access Indicators



Respondents indicated that access to primary health care, health insurance and prescription medications were the most important items related to health access; access to geriatric care, long term care and health therapies were the least important items in the Health Access domain.

Figure 17: Importance of Health Access Indicators



Crime and Violence

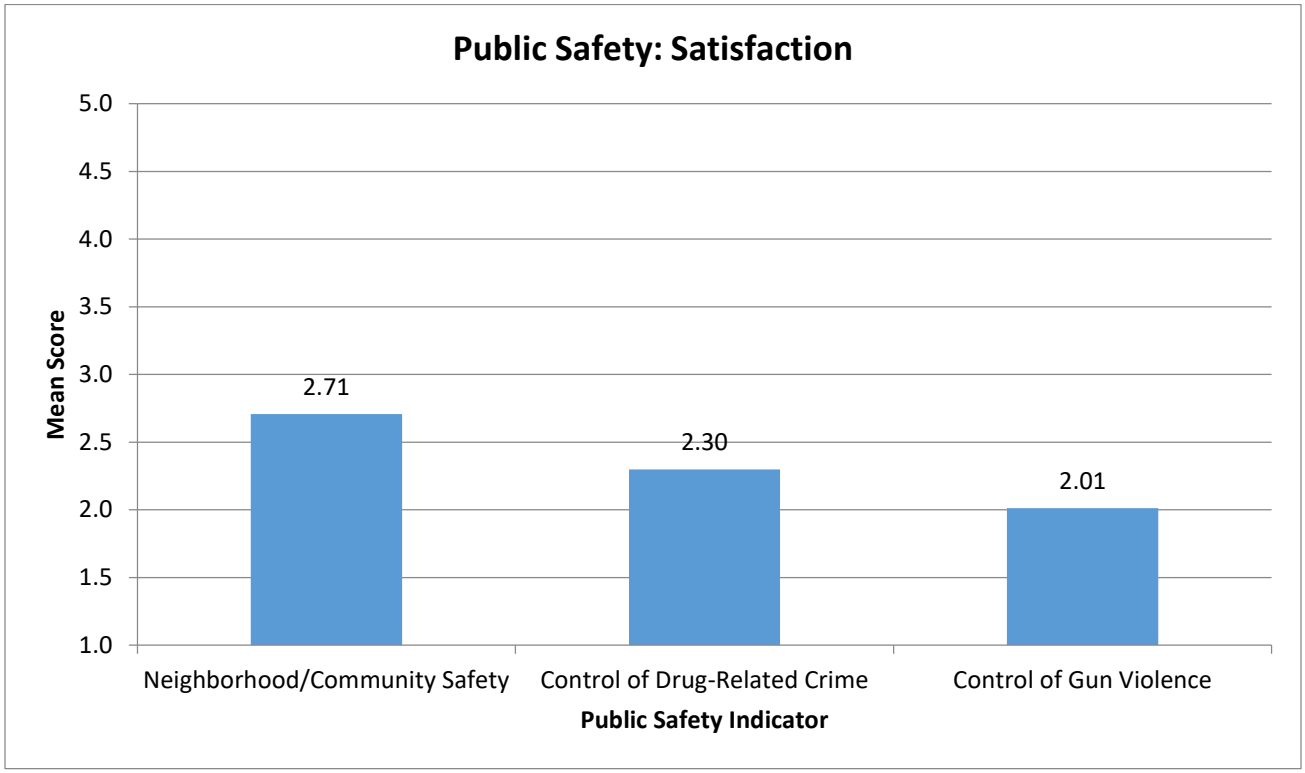
Crime, particularly drug-related crime and gun violence, was the third most commonly identified theme across the CTSA. Respondents reported concern about the perceived increase in crime over the past five years, noting that crime rates significantly impact the perception of safety and wellbeing.

Crime/Violence Strengths: Freedom from crime and violence, especially gun violence, was an important theme among CTSA participants. Some geographic areas within Jefferson County were perceived as having higher levels of safety than others.

Crime/Violence Weaknesses: Crime and violence, especially drug-related crime and gun violence, were identified as significant concerns for residents of Jefferson County. Decreased perceptions of safety and well-being in the areas of Jefferson County in which residents live, learn, work, play and worship were noted across the county. Police visibility was considered to be inadequate. The drug epidemic was believed to be a significant driver of crime within the county. Gang violence continued to be perceived as a problem.

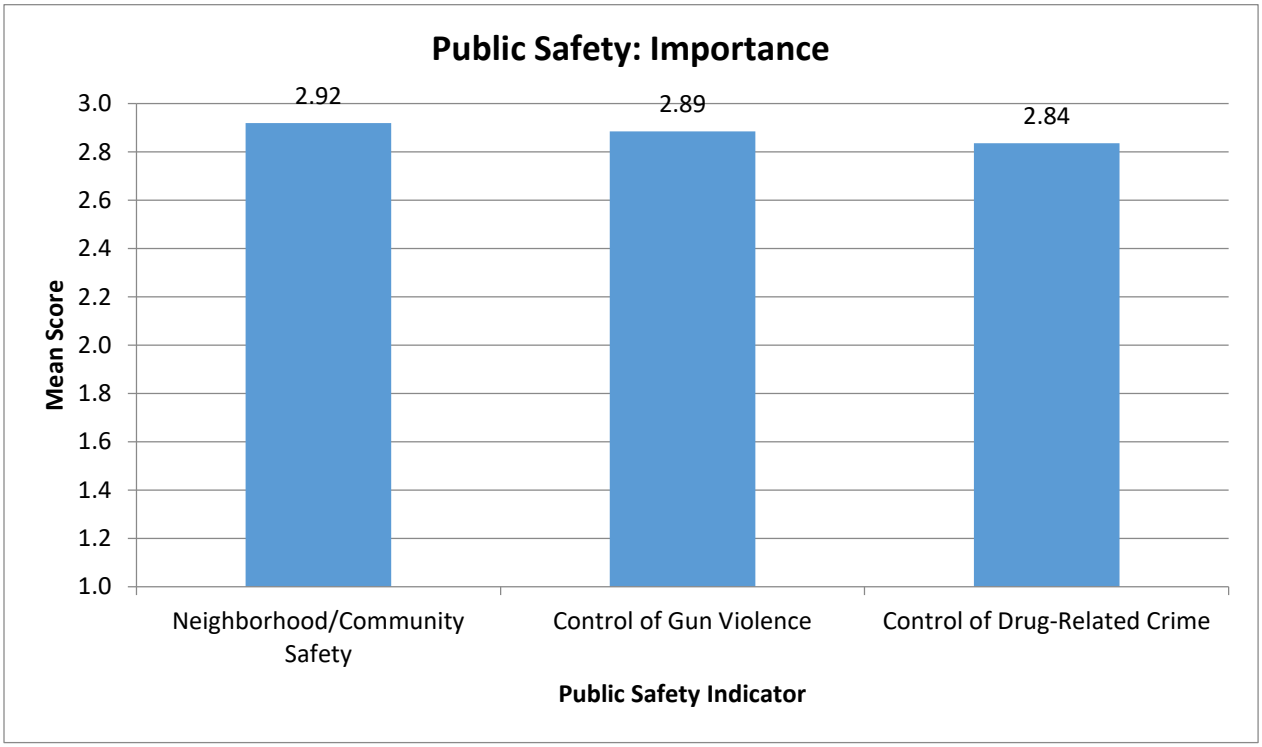
Survey respondents indicated overall dissatisfaction with all three indicators in the Public Safety domain of the *Your Opinion Matters!* survey.

Figure 18: Satisfaction with Public Safety Indicators



Each of the three of the indicators in the Public Safety domain of the *Your Opinion Matters!* survey ranked as indicators of High Importance.

Figure 19: Importance of Public Safety Indicators



Mental Health

Mental health was an area of concern for CTSA respondents. Participants exhibited high levels of mental health awareness and agreement that the promotion of mental health should occur alongside the promotion of physical health.

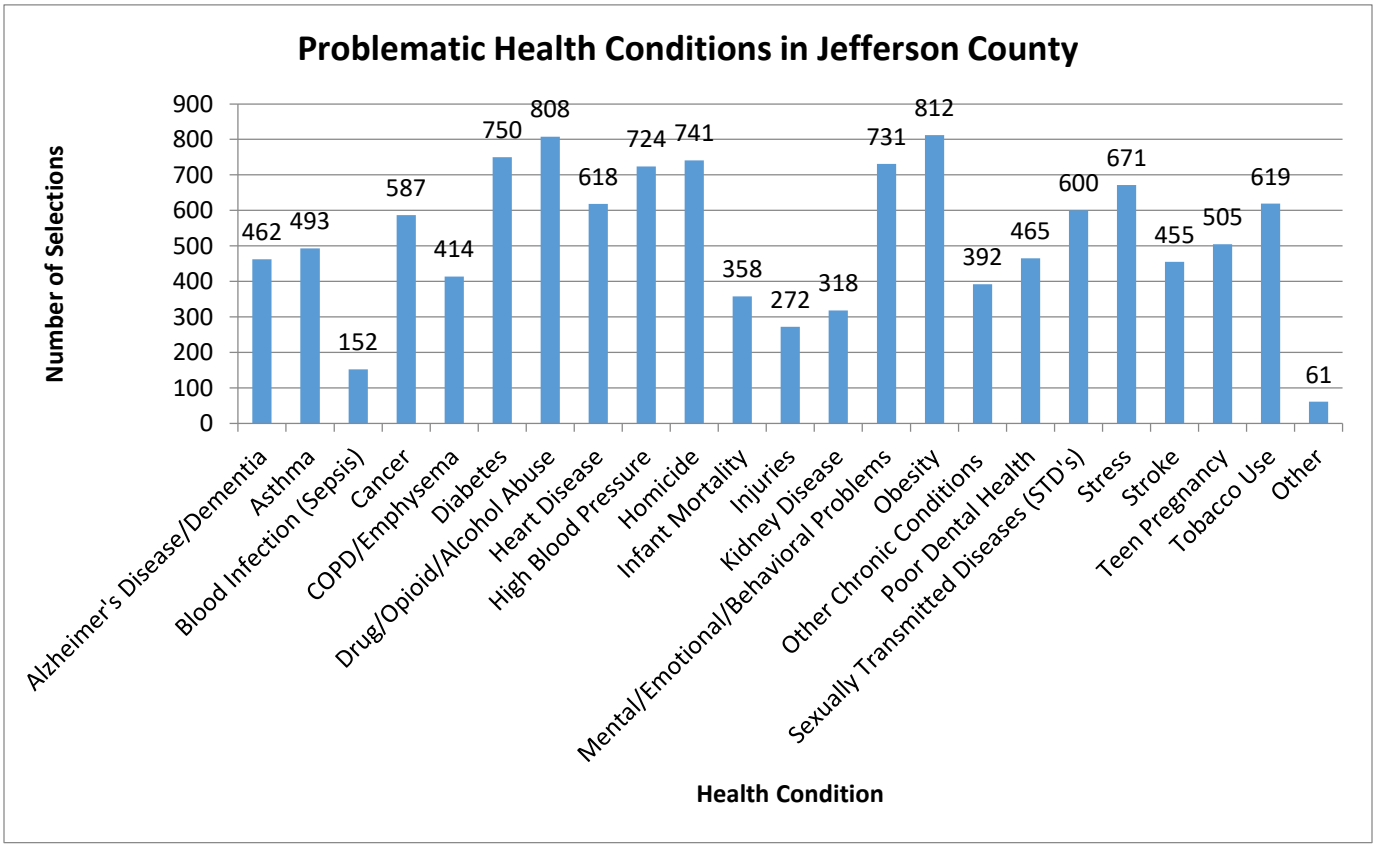
Mental Health Strengths: Focus group participants emphasized the importance of good mental health and accessibility of good mental health services accessible for all. Overall, participants felt that awareness of mental health needs and available services in Jefferson County had improved over the past five years.

Mental Health Weaknesses: Stigma related to mental health diagnoses and treatment was stated to continue to act as a barrier to receiving mental health care, especially among men. Location, cost and lack of mental health care provider availability within the county were reported as barriers to accessing mental health services and contributing to variability in access to care across Jefferson County. Youth suicide was specifically identified as a health concern needing improvement for prevention and post-intervention strategies.

For *Your Opinion Matters!* survey respondents, access to mental health services represented the indicator respondents were least satisfied with in the Health Access domain. Access to mental health services scored as high importance with a score of 2.79.

The category of Mental/Emotional/Behavioral problems was one of the top health conditions indicated as a leading health concern in Jefferson County, with 731 respondents selecting it as a problem.

Figure 20: Health Conditions in Jefferson County



Environmental Concerns

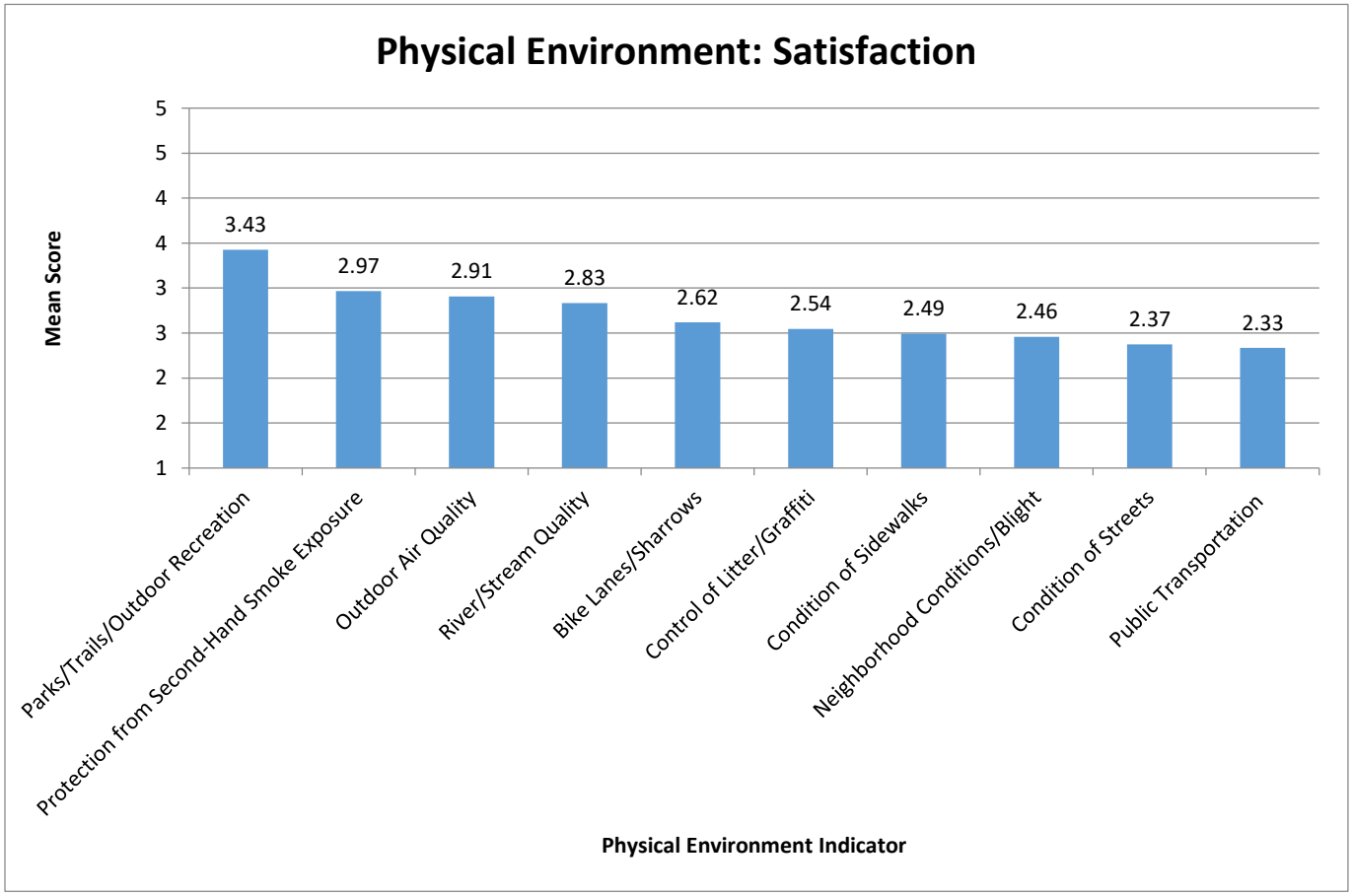
Environmental concerns include a variety of issues including illegal dumping, air pollution, safe water for drinking and recreation, flooding, and animal control. Illegal dumping was noted as a problem in a majority of CTSA focus groups.

Environmental Strengths: It was noted that Jefferson County possesses a wide variety of natural resources and a wealth of ecologic diversity contributing to the natural beauty of the county.

Environmental Weaknesses: Illegal dumping, burning of trash and debris, inadequate trash pickup, air pollution, poor indoor air quality related to smoking and asbestos, inadequate animal control, lack of safe water for drinking and recreation, and environmental contamination by sewage were identified as issues of concern for Jefferson County. Specific concerns included the cost and lack of consistent availability of trash pick-up in some areas of Jefferson County; these factors were believed to contribute to illegal dumping.

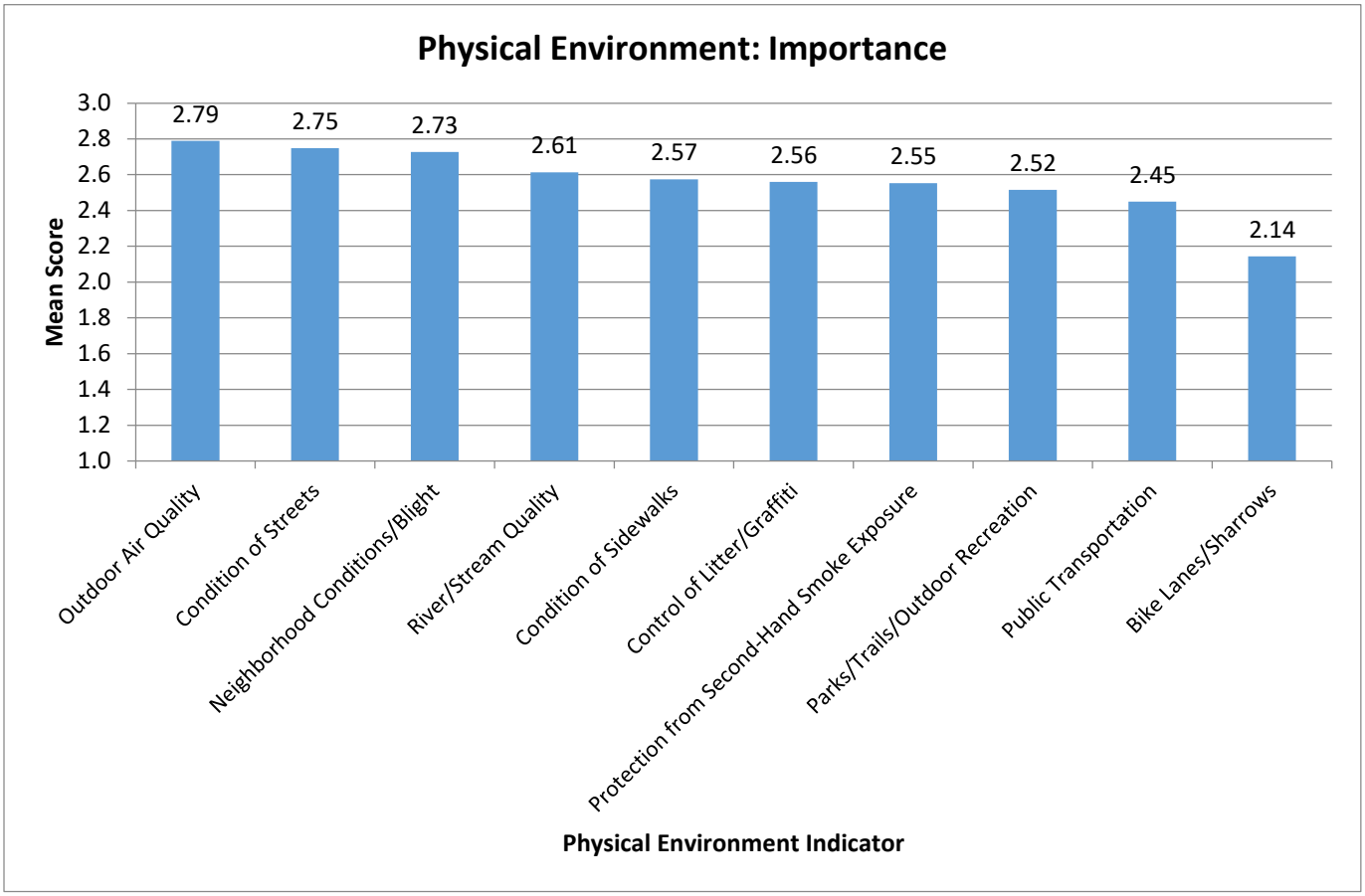
For *Your Opinion Matters!* survey respondents, the areas of the physical environment with the greatest level of satisfaction included the parks/trails/outdoor recreation, protection from second-hand smoke and outdoor air quality. The areas of the physical environment with which respondents were least satisfied included public transportation, condition of streets and neighborhood conditions/blight.

Figure 21: Satisfaction with Physical Environment Indicators



Survey respondents ranked outdoor air quality, condition of streets and neighborhood conditions/blight as the most important items in the Physical Environment domain. Bike lanes/sharrows, public transportation and parks/trails/outdoor recreation were ranked as the least important areas of the physical environment.

Figure 22: Importance of Physical Environment Indicators



Affordable/Accessible Housing

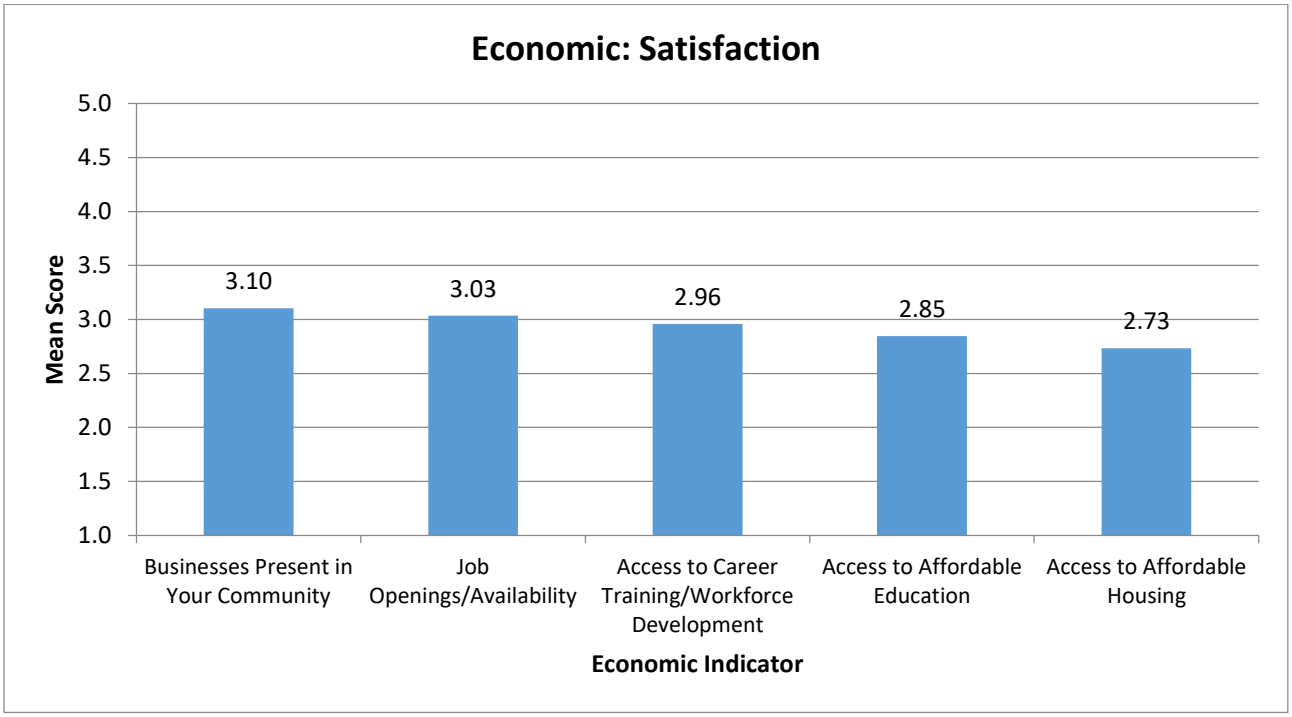
CTSA participants indicated a disparity in the cost of living across Jefferson County and limited opportunities for formerly incarcerated individuals and those who have been homeless to transition into permanent housing. Gentrification in areas of Birmingham was a noted concern for many individuals unable to attain affordable housing.

Affordable/Accessible Housing Strengths: Jefferson County was identified as having a relatively low cost of living compared to other areas of the United States.

Affordable/Accessible Housing Weaknesses: Disparities in the cost of living across Jefferson County were identified as a weakness. These disparities disproportionately burden individuals with lower incomes, disabilities and seniors. Difficulty securing safe and affordable housing, especially for seniors, individuals with disabilities and those transitioning in or out of homelessness, was documented. Some areas of the county with affordable housing were considered unsafe and lack access to public transit. Individuals who were formerly incarcerated or are transitioning out of homelessness reported restricted opportunities to secure permanent housing.

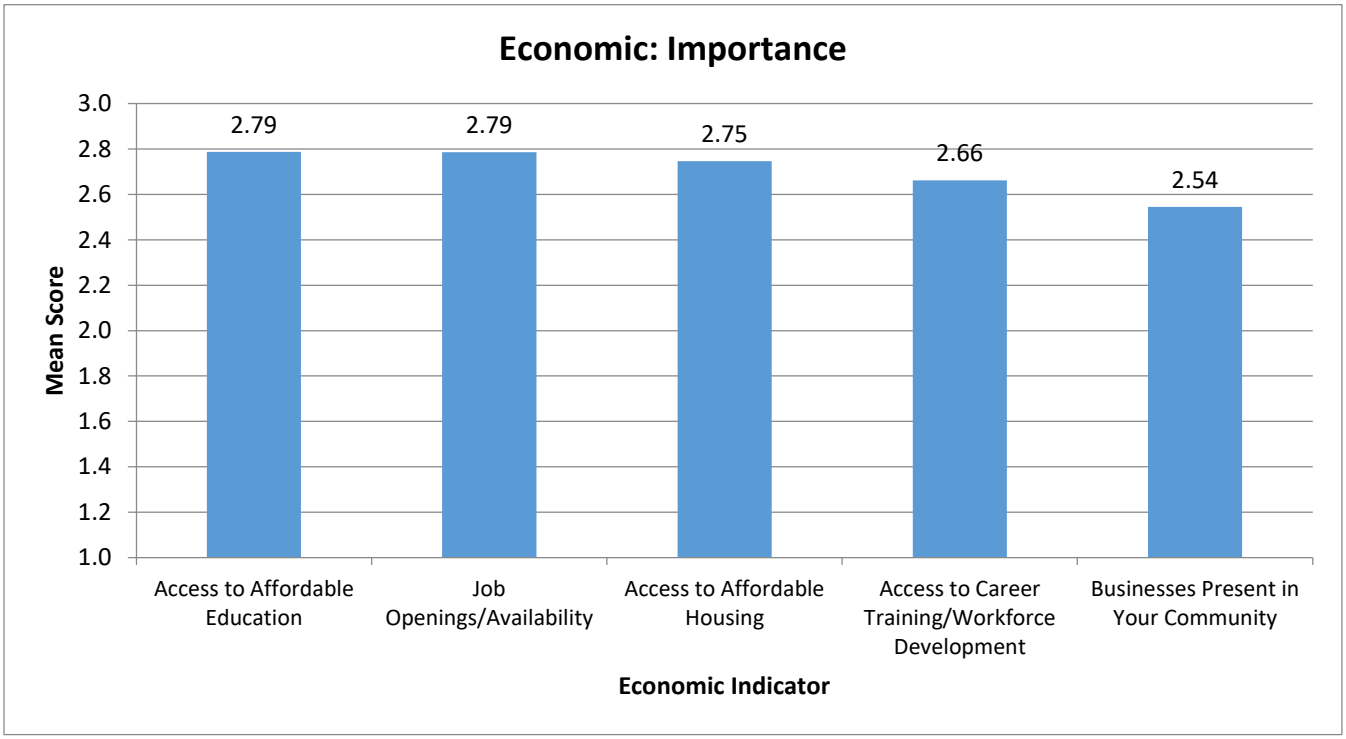
Among *Your Opinion Matters!* survey respondents, affordable housing was the area with the lowest satisfaction within the Economic indicators domain.

Figure 23: Satisfaction with Economic Indicators



Within the Economic domain of the Your Opinion Matters! survey, respondents ranked Access to Affordable Housing as High Importance with a score of 2.75 out of 3.

Figure 24: Importance of Economic Indicators



Infrastructure

Community concerns related to infrastructure issues include: hazardous road conditions leading to car accidents and increased wear and tear on vehicles, and sidewalks that are reported to be unsafe or unusable among individuals with mobility limitations and other disabilities, and economic disparities with improvements to local parks, trails and other community projects.

Infrastructure Strengths: With a number of highly visible construction projects in Jefferson County, improvements have been observed in some parks and recreational facilities, as well as improvements to streets, sidewalks and other aspects of the built environment. These improvements were considered by CTSA participants as making aspects of the county's infrastructure more accessible. Development of local parks and trails such as Railroad Park were identified as particular strengths for Jefferson County.

Infrastructure Weaknesses: Hazardous road conditions, including potholes, roads without shoulders, and roads too narrow for traffic patterns were stated to have increased vehicular accidents. Many streets and sidewalks throughout Jefferson County need repair per CTSA participants. It was stated that sidewalks are not consistently available within the county or are present but inaccessible for individuals

with disabilities. Infrastructure concerns included sewer and storm water issues leading to flooding, inadequate street lighting and poorly maintained cross-walks. Despite increasing technological requirements, widespread broadband access is unavailable in some areas of the county and is needed consistently throughout the county.

In the *Your Opinion Matters!* survey, respondents were neutral in overall satisfaction with access to technology but ranked it as an item of high importance within the Community Domain. Parks, trails and outdoor recreation, with a score of 3.43, had the highest level of satisfaction in the Physical Environment domain. Respondents indicated less satisfaction with the condition of sidewalks, scored at 2.49, and the condition of streets, scored at 2.37 out of five.

Condition of streets, sidewalks, parks, trails and outdoor recreation were ranked as the items of high importance within the Physical Environment domain by survey respondents.

Education

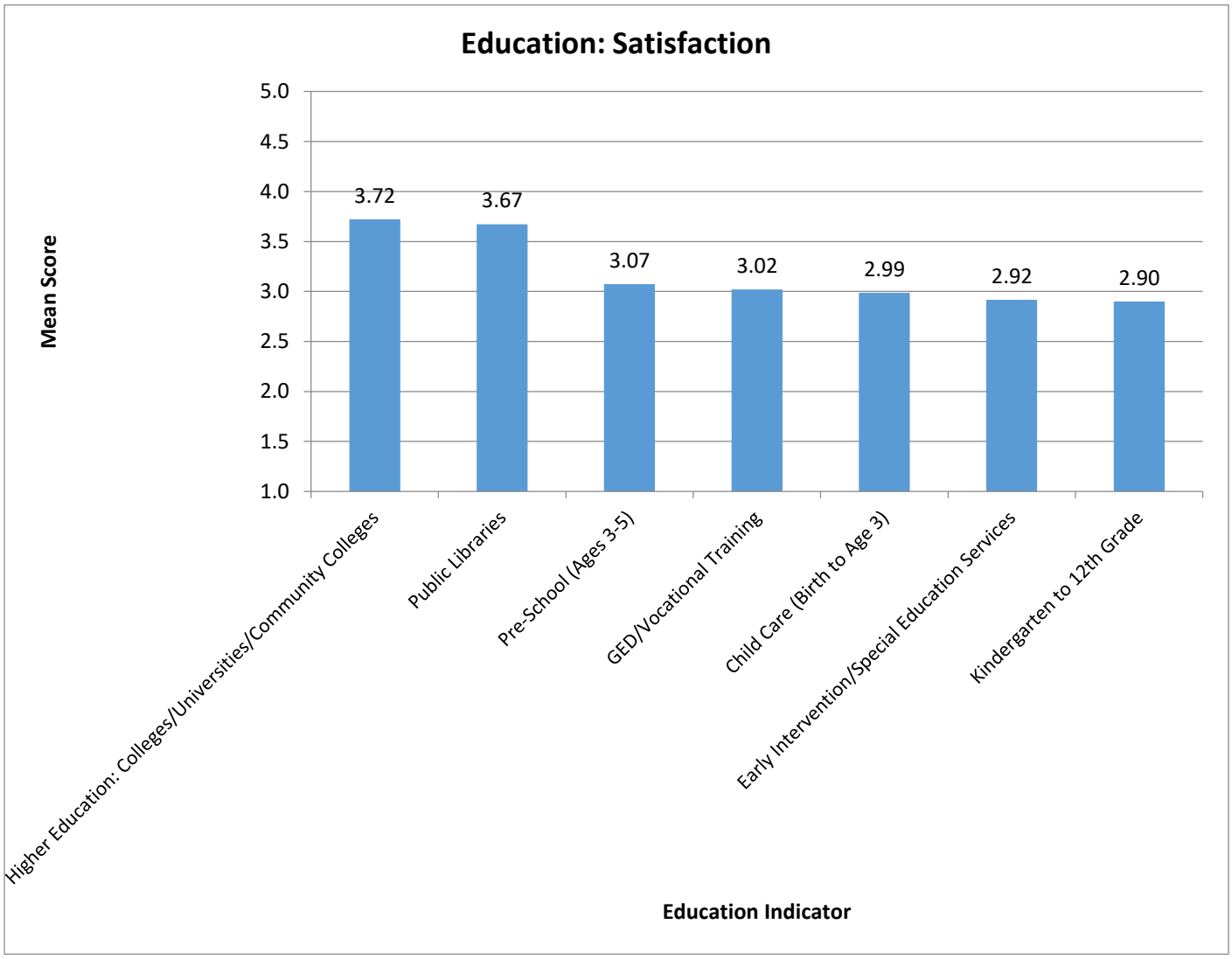
Overall, education was the eighth most commonly identified theme across the CTSA. Participants reported a need for health education including sexual and reproductive health education. There was also discussion of the need to strengthen and increase opportunities for after-school activities in safe, supervised settings beyond the academic day.

Education Strengths: Strong schools were indicated by CTSA participants as promoting health and providing a place where select health interventions occur. A number of school systems within Jefferson County were described as strong and widely respected.

Education Weaknesses: CTSA participants described the need for qualified, supported staff and faculty in all local school systems to enable students to achieve rigorous academic standards. Disparities in school system performance within Jefferson County was stated as a weakness. Access to equitable, high quality school resources was stated as inconsistent across the county. Mental health services, social services and health education, especially related to sexual and reproductive health, were indicated as lacking in local schools. Access to vocational training was deemed inadequate to prepare individuals for many jobs. Inadequate parental education and support was stated contribute to poor child academic success among students.

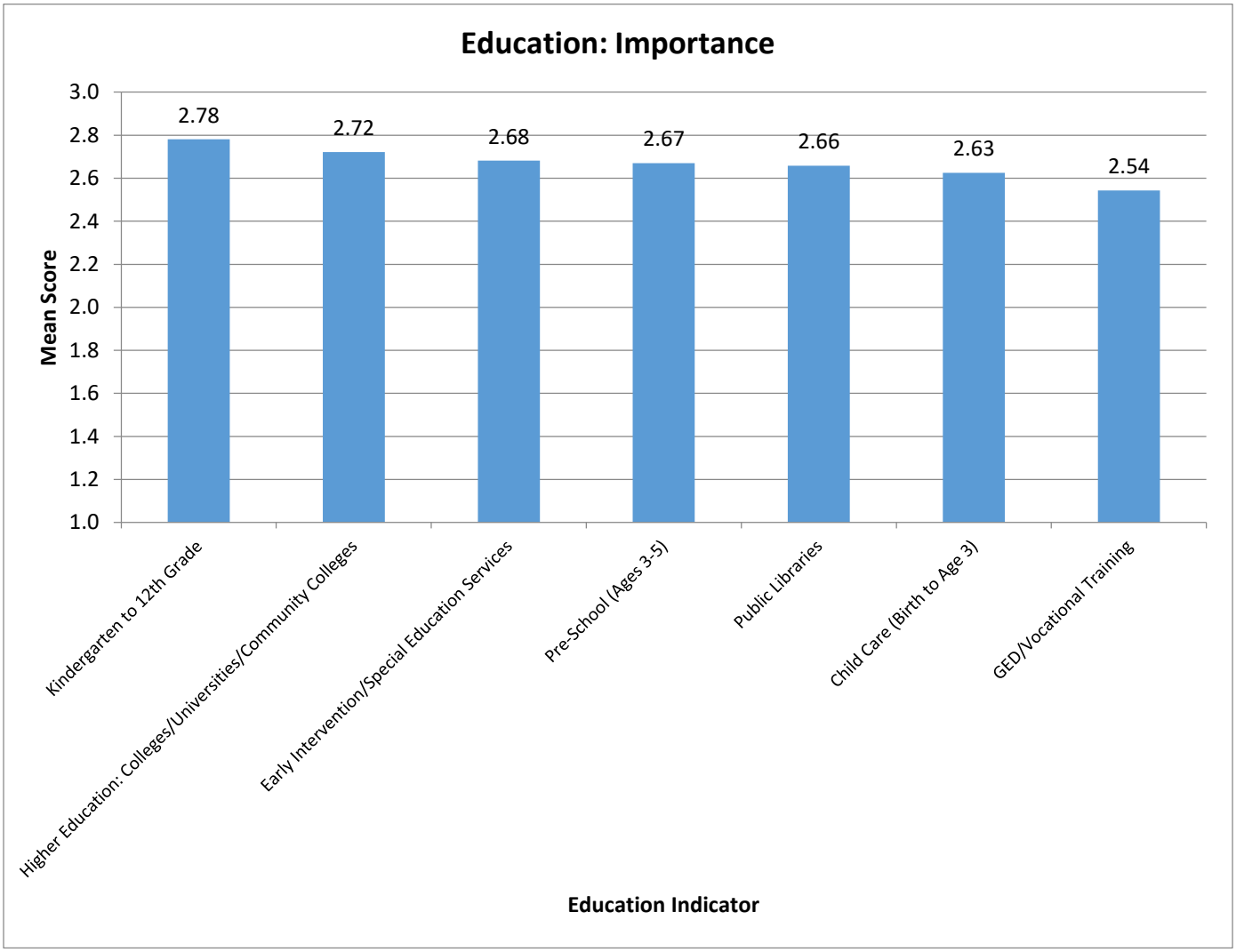
Higher education was the item with which *Your Opinion Matters!* survey respondents indicated the most satisfaction overall. Respondents also noted satisfaction with the public libraries in Jefferson County. Respondents were neutral and indicated lower levels of satisfaction with Kindergarten to 12th grade education and early intervention/special education in the Education domain.

Figure 25: Satisfaction with Education Indicators



In terms of importance, survey respondents ranked kindergarten to 12th grade education, higher education and early intervention/special education as the most important items in the Education domain. GED/Vocational training, child care and public libraries were ranked as the least important items in the Education domain.

Figure 26: Importance of Education Indicators



Government and Political Leadership

Broadly, CTSA participants reported disillusionment in regard to the presence of unified leadership and government and expressed a desire for improved, coordinated and collaborative public services and systems across municipalities, districts and neighborhoods.

Government and Political Leadership Strengths: Many of the CTSA respondents indicated personal engagement in the political process and system in Jefferson County reported renewed engagement with regarding the city of Birmingham's current leadership.

Government and Political Leadership Weaknesses: Disillusionment related to lack of unification and cohesiveness among local governments was a key concern of CTSA participants. A lack of cohesion and cooperation among the county's municipalities and resident distrust of political leadership was identified as a significant dis-satisfier for those living in Jefferson County. CTSA participants revealed the perception that political leaders only assist the areas they directly represent and ignore the county as a whole.

For *Your Opinion Matters!* survey respondents, leaders who are responsive to concerns was the item within the Community Domain rated as the least satisfying. This item notably ranked as the most important within the Community domain.

Figure 27: Satisfaction with Community Indicators

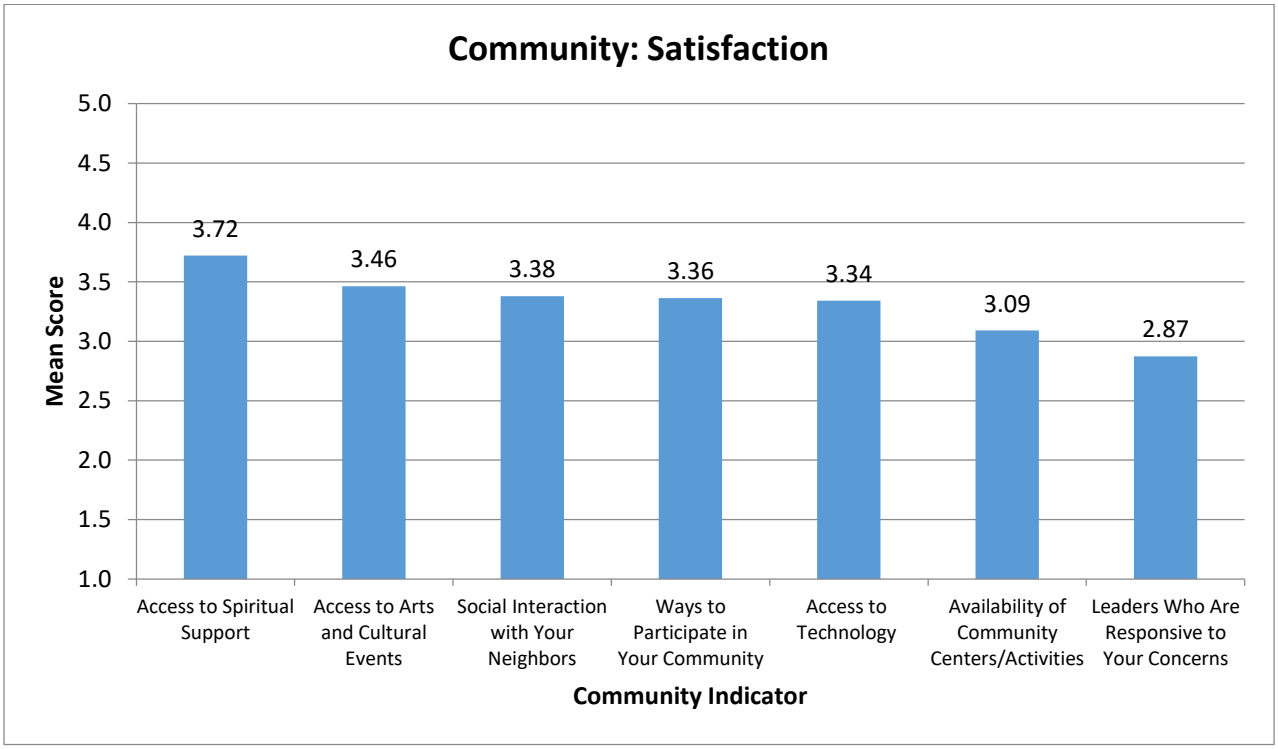
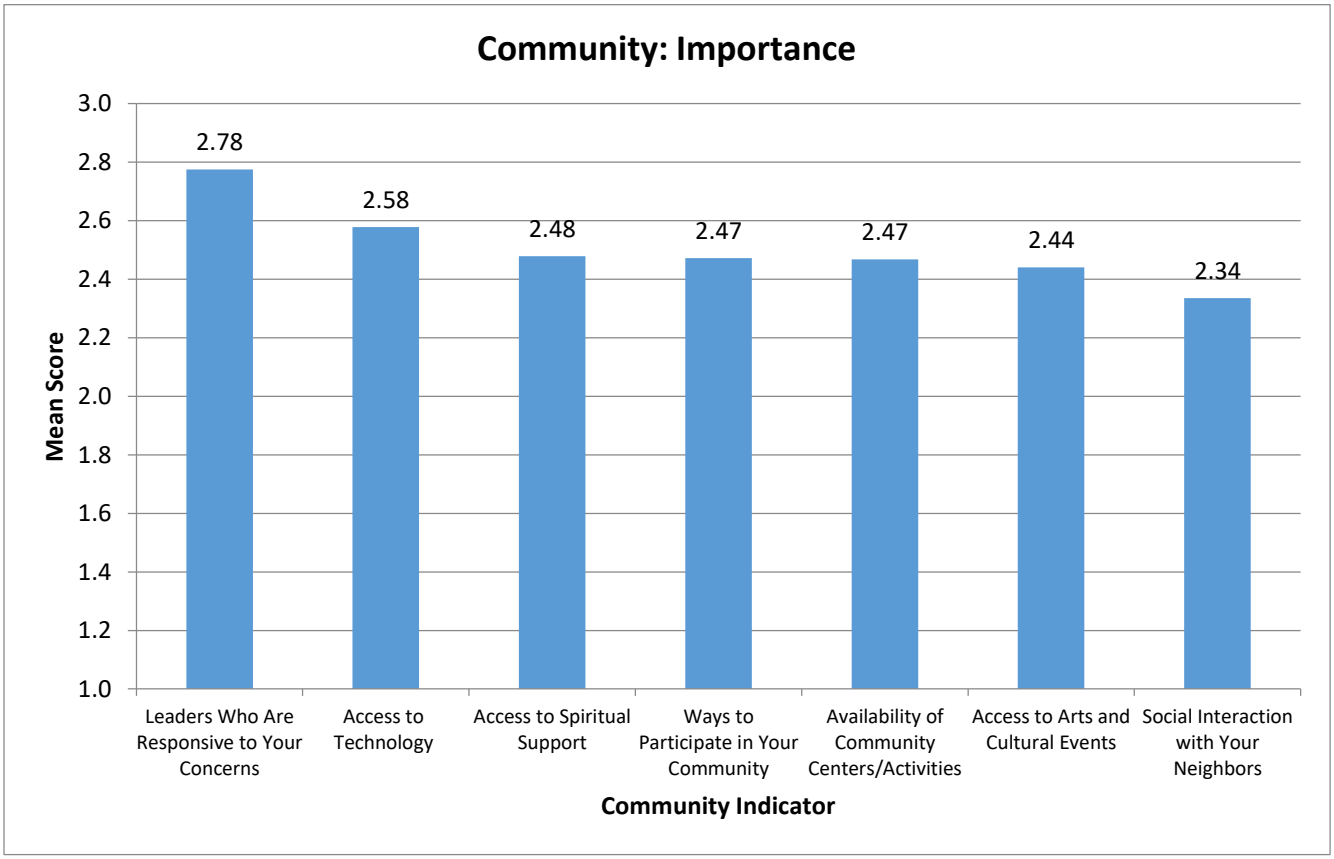


Figure 28: Importance of Community Indicators



Neighborhood Conditions

Poor neighborhood conditions influence health, safety, social opportunities, and the risk of becoming sick and dying. Conditions such as dilapidated and abandoned housing, crime, and litter or garbage on the street can adversely impact, either directly or indirectly, overall well-being.

Neighborhood Condition Strengths: Many CTSA participants indicated active involvement in their neighborhoods to maintain neighborhood beauty.

Neighborhood Condition Weaknesses: The large numbers of abandoned houses in some neighborhoods has resulted in overgrown lots, vermin, and other health and safety hazards. Increased percentage of rental housing units and absentee landlords were identified as factors increasing blight, illegal dumping and poor property maintenance by CTSA participants.

Survey respondents reported dissatisfaction with control of litter and graffiti in the Physical Environment domain and this item was ranked as one with High Importance.

Blight

There was significant discussion of blight among CTSA participants. Many participants reported high numbers of abandoned homes in neighborhoods which are thought to increase health hazards and risky activities such as drug and human trafficking.

Blight Strengths: The Land Bank Authority's implementation of the Blight Elimination Program throughout the City of Birmingham was stated to be a positive action. This program seeks to revitalize neighborhoods by partnering with private property owners to remove blighted structures (both residential and commercial) and encourage reinvestment in the property.

Blight Weaknesses: The large numbers of abandoned houses in local neighborhoods creates overgrown lots, vermin and other health and safety hazards. Increasing percentages of renters versus home owners in neighborhoods and absentee landlords were identified as factors that increase blight, illegal dumping and poor property maintenance.

Neighborhood conditions and blight were specific items of dissatisfaction among survey respondents in the Physical Environment domain of the *Your Opinion Matters!* survey, with a score of 2.46 out of five. This item scored a 2.75 out of three in importance, indicating that blight is of high importance to survey respondents.

Shifting Demographics

Shifting Demographics includes increases and decreases in county diversity across age, sex, economic, racial and ethnic, and country of origin categories. There was recognition among respondents that shifting demographics may lead to new challenges that must be addressed. Gentrification was a major concern.

Shifting Demographics Strengths: Jefferson County's population is recognized as highly diverse. Many persons who contributed to the CTSA considered this diversity one of the county's greatest strengths. UAB was identified as local driver of cultural diversity. Participants reported positive responses to economic development bringing new residents to neighborhoods such as Avondale.

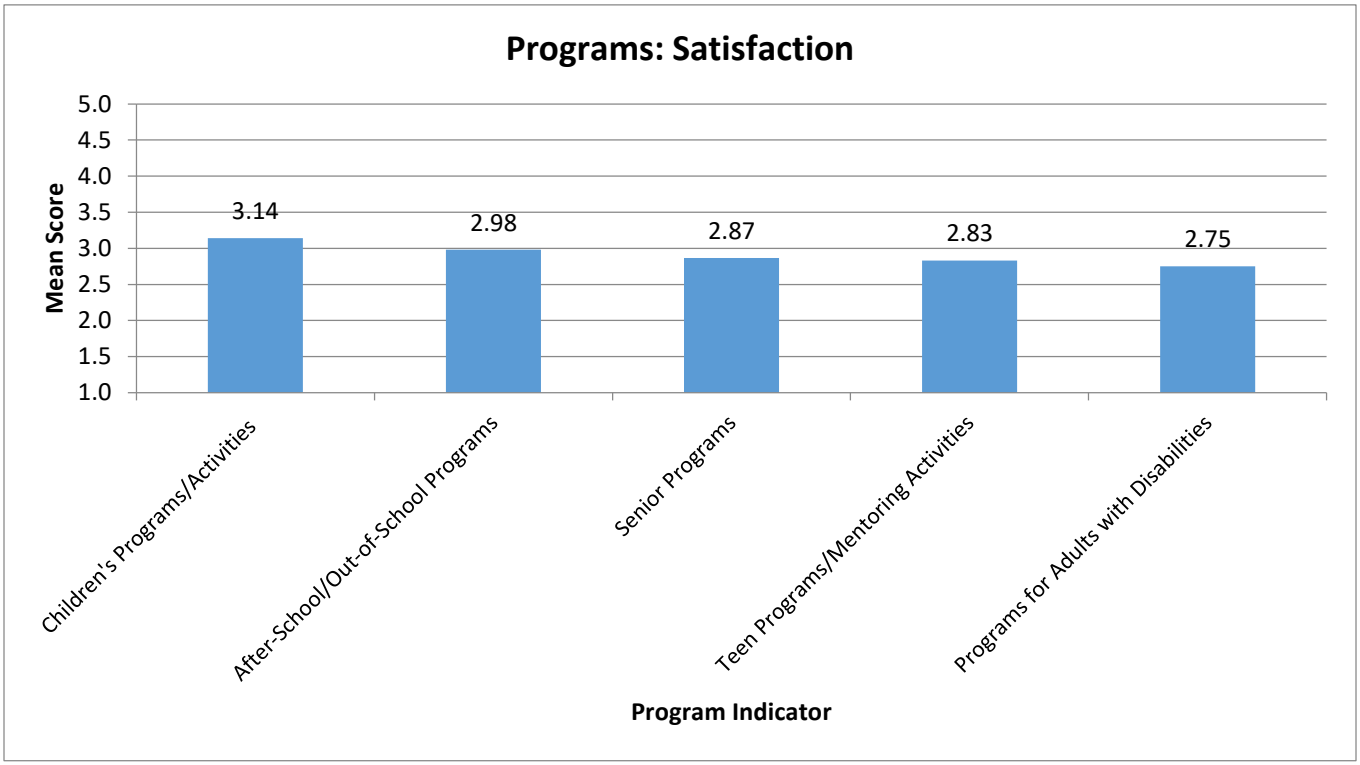
Shifting Demographics Weaknesses: With an aging population, gentrification of select areas, and other changes, the population of Jefferson County was identified as changing. For some respondents, increasing diversity of Jefferson County's population is a weakness. Culturally and linguistically-appropriate services were stated as frequently absent or inadequate to equitably serve marginalized populations. Discrimination based on race, socioeconomic status, sexual orientation, gender, ethnicity, ability, age and other factors were stated as negatively affecting individuals in Jefferson County.

With the shifting demographics of Jefferson County creating the need for tailored programs,

consideration of current levels of satisfaction with the programs offered in Jefferson County was recommended.

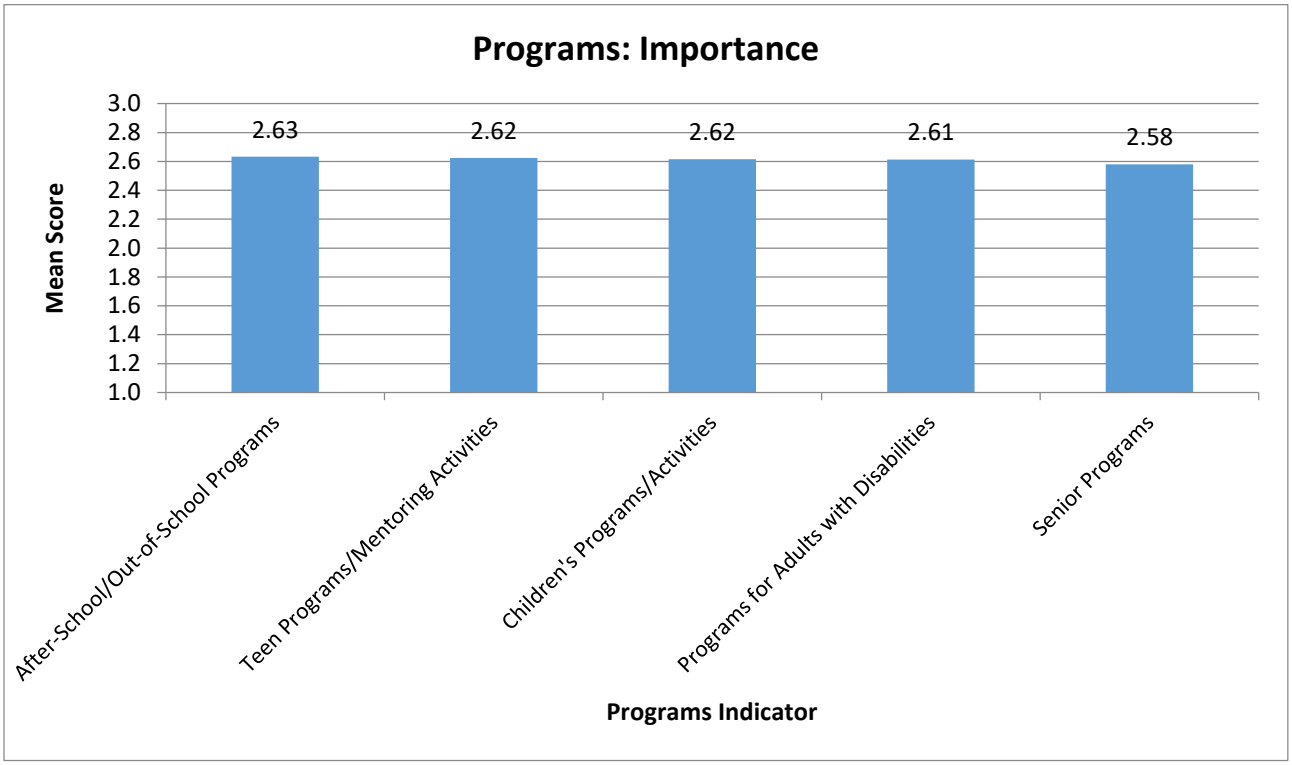
Your Opinion Matters! survey respondents reported the highest satisfaction with children's programs/activities and the least satisfaction with programs for adults with disabilities within the Programs domain.

Figure 28: Satisfaction with Programs Indicators



Survey respondents scored after-school/out-of-school programs, children's programs/activities and teen programs/mentoring activities as most important and senior programs as least important within the Programs domain.

Figure 29: Importance of Programs Indicators



Biases

Survey respondents are aware of the racial history of Jefferson County and Birmingham and state it impacts daily interactions for many individuals. There was awareness of systemic biases and institutional policies that negatively impact health. Participants provided examples of discrimination based on race, age, gender/gender identity, language, economic status and sexual orientation. Hispanic and non-English speaking participants reported denial of services.

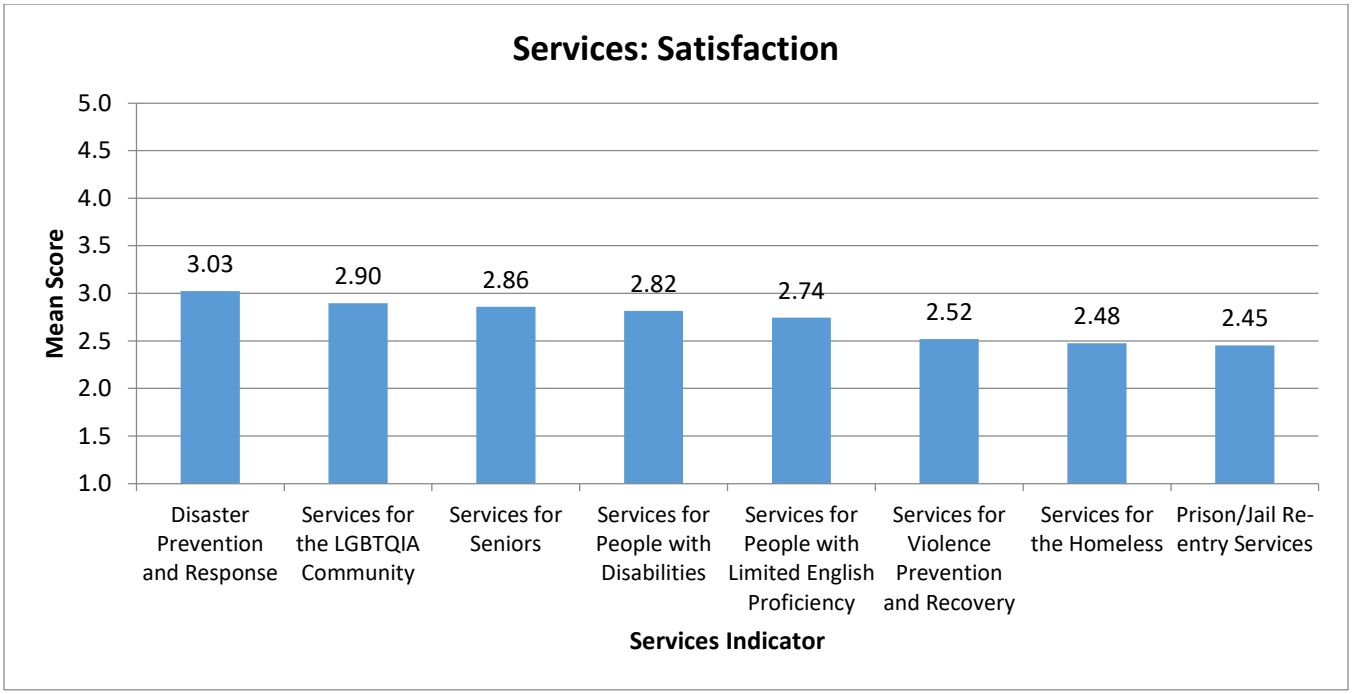
Biases Strengths: Birmingham's history of Civil Rights activism was indicated as increasing the willingness of Birmingham residents to confront biases more than in other cities in Alabama and the nation.

Biases Weaknesses: Police profiling and other practices were deemed to have contributed to health disparities and a lack of trust among marginalized populations. Racism, ageism, classism, gender bias and bias based on sexual orientation were reported broadly. Some populations, especially the Spanish-speaking sub-population, experienced limited access to services and systematic policies contributing to disparities in health.

Service provision was state by CTSA participants as important in reducing bias. Among *Your Opinion*

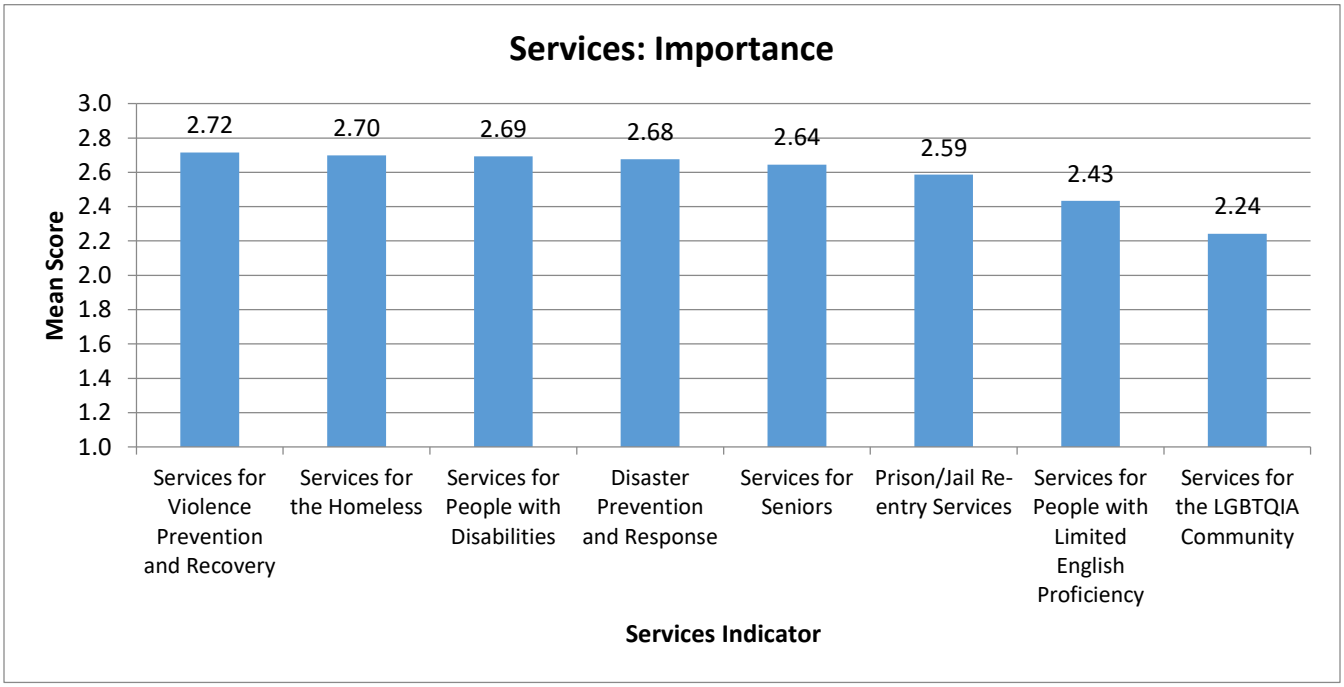
Matters! survey respondents, disaster prevention and response, services for the Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, Asexual (LGBTIA) community, and services for seniors received the highest satisfaction score. Respondents were least satisfied with services for prison/jail reentry, the homeless and for violence prevention and recovery.

Figure 30: Satisfaction with Services Indicators



Survey respondents ranked services for violence prevention and recovery, services for the homeless and services for people with disabilities as most important and services for the LGBTQIA community, services for people with limited English proficiency and prison/jail reentry services as least important in the Services domain.

Figure 31: Importance of Services Indicators



Job Opportunities and Training

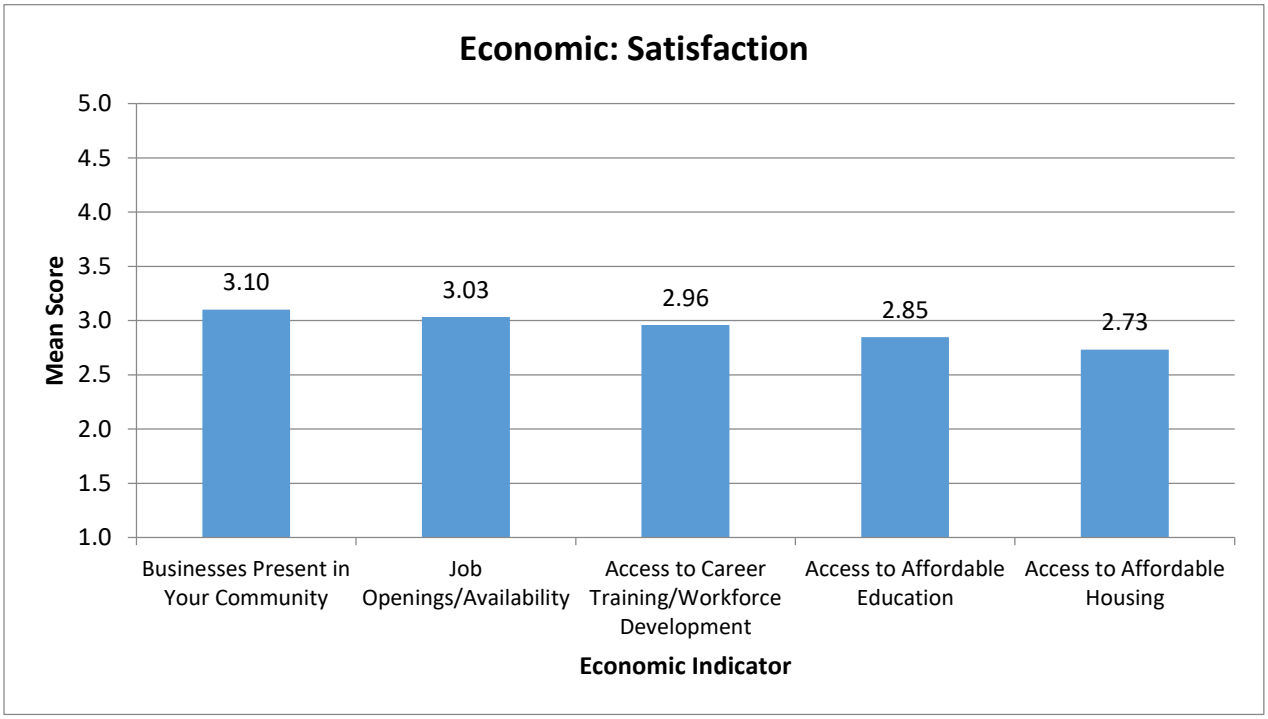
Jefferson County's large employers are economic drivers for the county, including UAB and the soon-to-open Amazon distribution facility in Bessemer. Participants noted difficulty finding jobs, jobs paying a living wage, as well as inadequate job training.

Job Opportunities and Training Strengths: Large employers are economic drivers within Jefferson County providing jobs and training for residents.

Job Opportunities and Training Weaknesses: Certain rural areas of Jefferson County provide fewer jobs and vocational training opportunities for residents. The lack of job availability and training opportunities disproportionately affect those living in rural areas of the county, young people, the homeless, non-English speakers, non-US citizens and individuals living with a disability. Low wages, difficulty finding jobs, lack of preparation for entering the workforce, and limited job opportunities for individuals living with a disability were cited as particular weaknesses. With an increasing dependence on technology, participants noted the need for greater job training in technology.

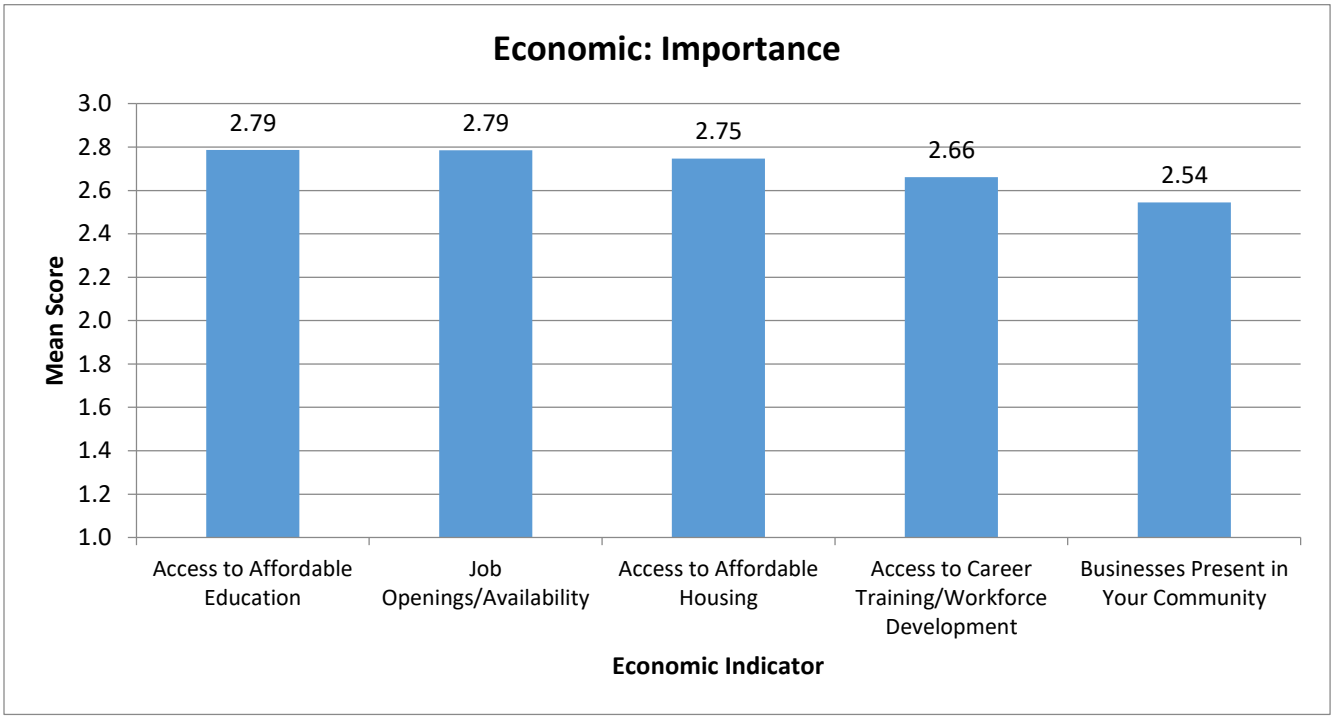
Your Opinion Matters! survey respondents for the Economic domain were most satisfied with the businesses present in the community and job openings/availability and least satisfied with access to affordable housing and access to affordable education.

Figure 32: Satisfaction with Economic Indicators



Respondents scored job openings/availability and access to affordable education as most important and businesses present in the community and access to career training/workforce development as least important in the Economic domain.

Figure 33: Importance of Economic Indicators



Food System

The food system in Jefferson County was recognized as both an asset and weakness.

Food System Strengths: With the city of Birmingham's recent national recognition as a destination city for food, there are many high-end restaurants bringing tourists and other visitors into Birmingham.

Food System Weaknesses: Respondents reported inequitable access to healthy food within Jefferson County. Some areas lack grocery store access, and taxes on groceries further restrict the ability of those with limited resources to purchase healthy food. Municipality-based ordinances related to urban gardening and sale of food in mobile grocery trucks are limiting opportunities to make healthy foods more accessible to food insecure residents.

Your Opinion Matters! survey respondents scored satisfaction with access to healthy food with a neutral score of 3.13 out of five and as an item of high importance with a score of 2.82 out of three.

Drug/Opioid Crisis

Respondents were generally concerned about the impacts of drug abuse and addiction, especially as these related to opioids.

Drug/Opioid Crisis Strengths: Increasing awareness of substance abuse and its impacts among Jefferson County residents and increased opportunities to receive substance abuse assessment, referral to treatment and prevention services.

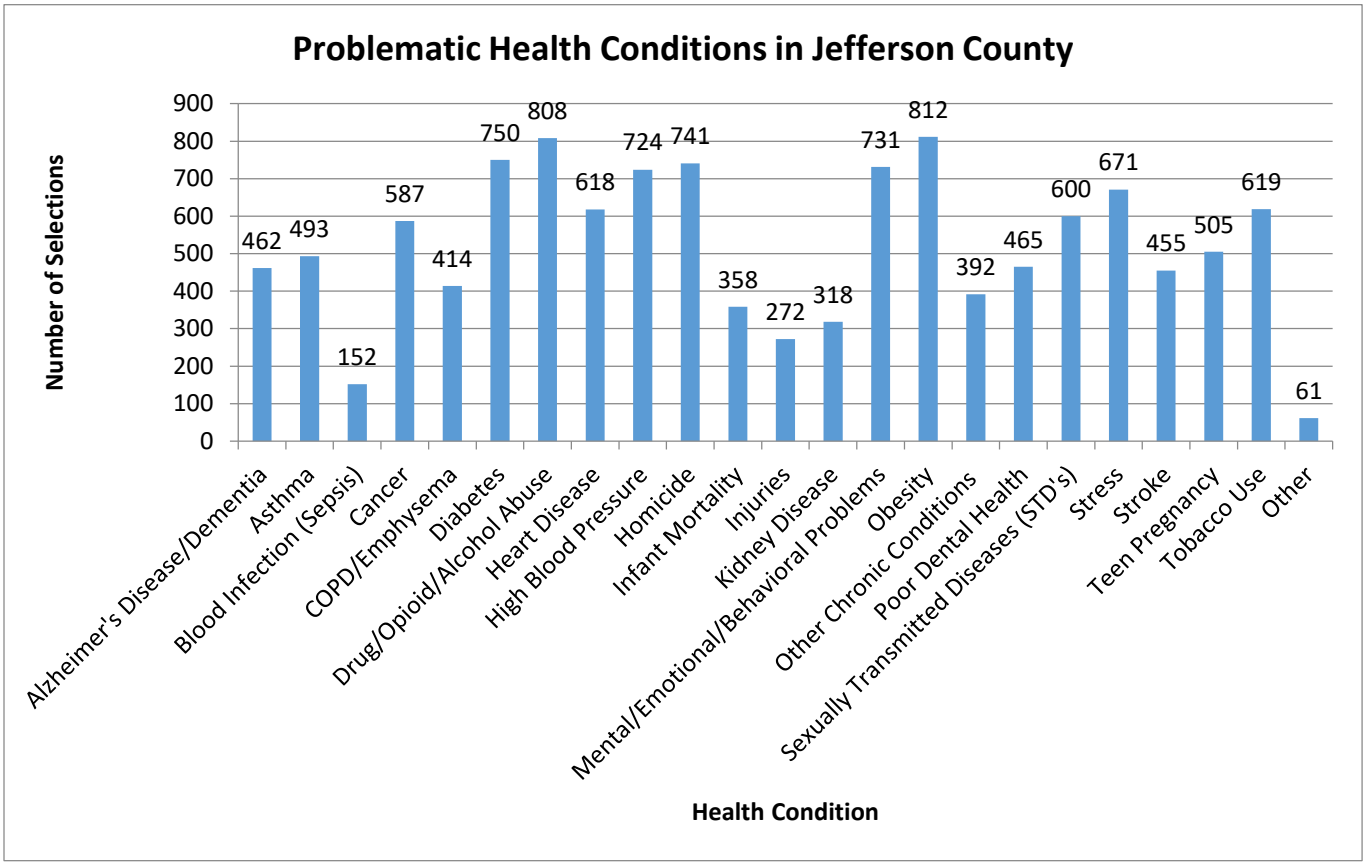
Drug/Opioid Crisis Weaknesses: Increased drug use, especially of opioids was believed to contribute to crime, poor mental health, neonatal abstinence syndrome and homelessness. Regional variation of drug use within the county and stigma were cited as particular concerns.

Control of drug-related crime was the item for which *Your Opinion Matters!* respondents were second least satisfied overall. Access to substance abuse treatment received a neutral satisfaction score, but was the second lowest scoring item for satisfaction in the Health Access domain. Control of drug-related crime was one of the top ten items of overall importance, while access to substance abuse treatment ranked as an item of High Importance with a score of 2.66 out of three.

Health Conditions

In both the *Your Opinion Matters!* survey response and in the focus groups, respondents expressed concerns about a variety of health issues in Jefferson County. The graph below reveals of survey responses to the question of what health issues are a problem in Jefferson County with the number of respondents to each health issue.

Figure 34: Health Conditions in Jefferson County



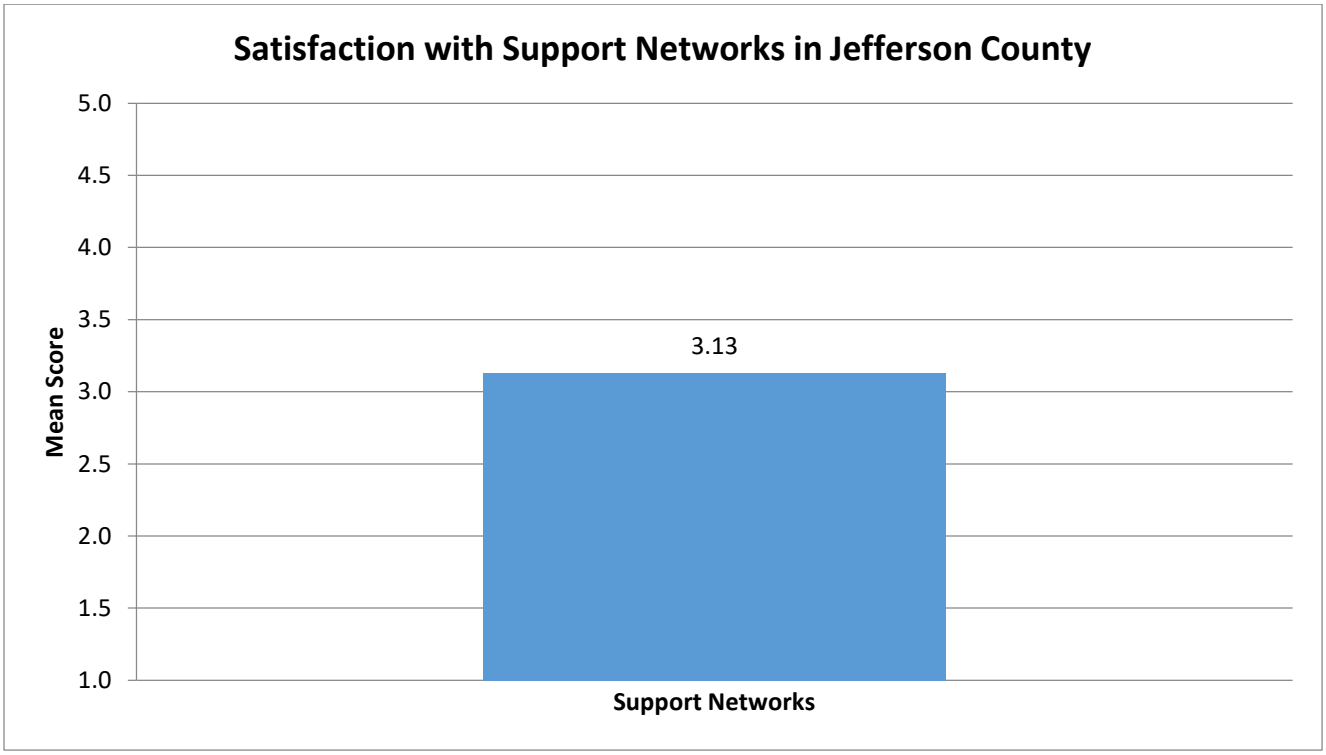
Other health conditions of concern for survey respondents included the following: adult congenital heart disease, alcohol abuse, autism, birth defects, autoimmune conditions, childhood trauma, crime, disabilities, HIV, neurologic disorders/traumatic brain injury, respiratory illness due to industrial pollution, non-adherence to vaccine recommendations, nutritional deficits, suicide, and unwanted pregnancies.

In focus groups, chronic health conditions as a broad theme appeared in the various discussions, but it was not a top theme that emerged. When prompted for specific responses about health conditions of concern respondents noted several chronic and other medical conditions that impact the health of Jefferson County's population. The conditions most commonly identified included: Obesity, diabetes, heart disease, asthma, sexually transmitted infections, cancer, and Alzheimer's Disease.

Support Networks

Your Opinion Matters! survey respondents were slightly higher than neutral in the ranking of support networks, including financial, emotional and spiritual support for themselves and their families during times of need.

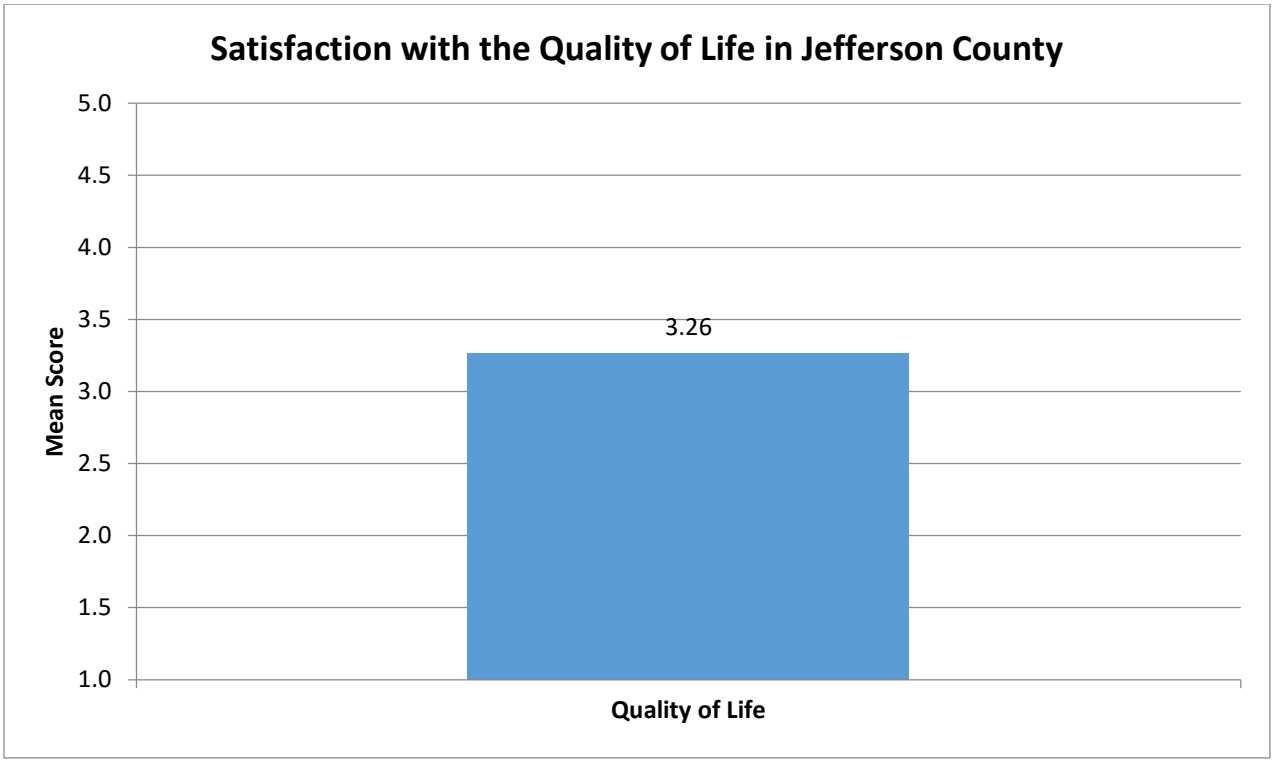
Figure 35: Support Networks in Jefferson County



Quality of Life

Your Opinion Matters! survey respondents were slightly higher than neutral with a score of 3.26 in ranking the quality of life in Jefferson County.

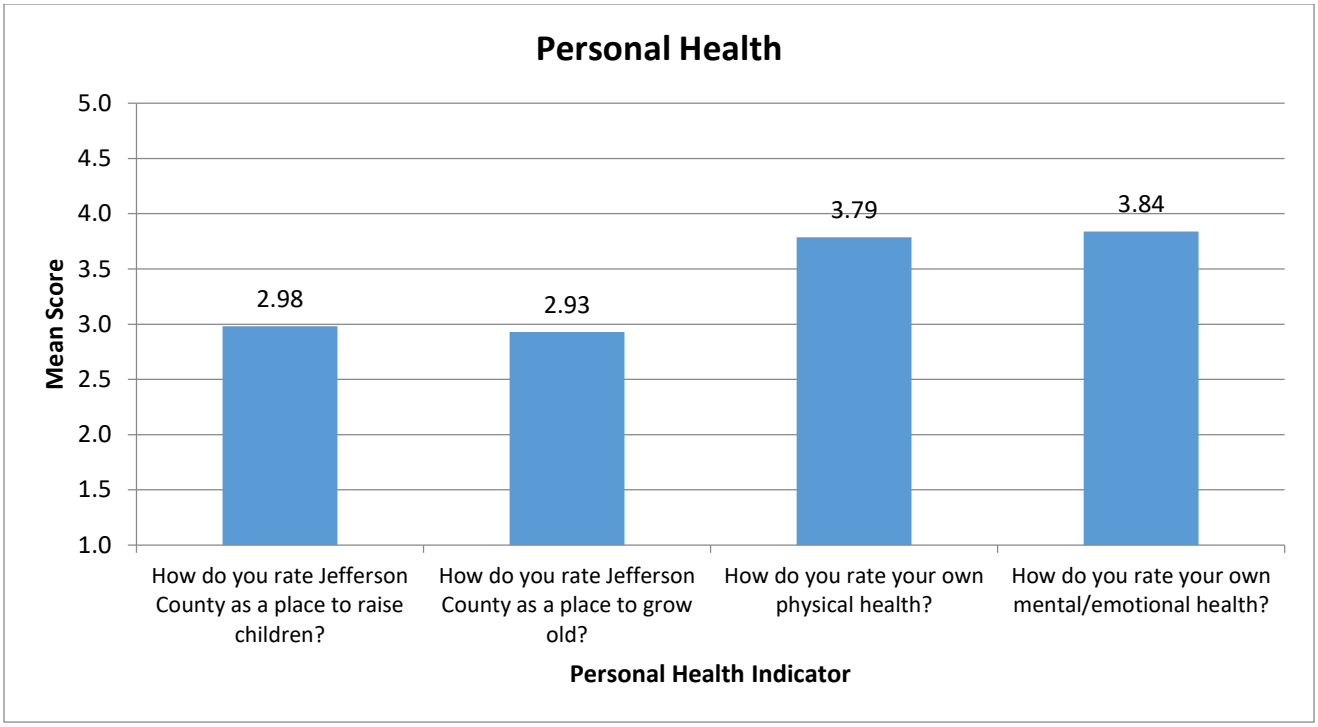
Figure 36: Quality of Life in Jefferson County



Personal Health

Individuals who responded to the *Your Opinion Matters!* survey rated Jefferson County neutrally as a place to raise children and grow old. Respondents rated both their physical and mental/emotional health as good with a score of 3.84 out of five.

Figure 37: Personal Health in Jefferson County



Areas of Concern for Specific Populations

Spanish-Speaking

Overall, the concerns of the Spanish-speaking population mirrored those in the overall assessment. Spanish-speaking participants focused comments on the future of the county and how children will be impacted. In particular, discussion centered on quality education, especially quality teachers. An increase in drug-use and violence were noted issues. Litter, abandoned buildings, and the need for infrastructure improvement were items of concerns in this sub-population. There was discussion related to access to services; participants recognized that Jefferson County has quality providers for health care and other social services, but noted that there for Spanish-speaking individuals there are many barriers to access. These barriers included long waiting lists and lack of clarity around qualification for services. Lastly, this sub-population noted negative bias and general discrimination toward those who do not speak English.

Seniors

Seniors who participated in focus groups reported many of the same themes as those reported in the overall set of participants. Quality education, infrastructure improvement, particularly for participants with mobility challenges, and environmental concerns were of particular interest. Furthermore, this sub-

population noted particular needs for affordable housing and job re-training/job opportunities. Many of the participants in the senior-focused focus groups had lived in Jefferson County for decades and were keen to note how the county currently compares to the past with respect to shifting demographics, tension between youth and seniors, and political leadership's partnership with the community.

People with Disabilities

The participants in the two focus groups for people living with disabilities noted a variety of concerns. First, some improvements in infrastructure accessibility were reported, but these improvements were not indicated as consistent across the county (sidewalk availability, improvement, etc.) Participants also noted the need for accessible, convenient, well-maintained, and consistent public transit. Affordable housing and employment opportunities for people with disabilities providing a living wage were a great need to this population. While noting the presence of high quality providers and services, many service providers were reported as needing to improve accommodations for people with disabilities, including the provision of sign-language interpretation.

Homeless Population and the Formerly Incarcerated

Sub-populations of homeless or formerly incarcerated individuals expressed similar experiences to each other. Lack of access to health care and services were of particular note to these sub-groups. Many persons within these sub-populations use emergency rooms for health care and experience a lack of coordination among services. There was also a need identified for wrap-around services including job training and affordable housing. Stigma around mental health, homelessness, and whether someone has formerly been incarcerated was a common area of discussion.

Summary of Strengths

Your Opinion Matters! survey respondents and focus group participants were asked to identify strengths in Jefferson County.

Figure 38: Word cloud representing responses to survey question "What is the best thing about living in Jefferson County?"

Participants in the focus groups and respondents to the survey highlighted many strengths in Jefferson County. Most consistently, the people of Jefferson County were identified as the best part of the region. The word cloud above (Fig. 38) was generated from the responses to the open ended survey question, "What is the best thing about living in Jefferson County?" and focus group participant comments regarding the strengths of the county. The larger the word appears in the graphic, the more frequently it was mentioned. The words that appeared most often (and are the largest in the word cloud above) are listed in Table 7 below.

Table 7. List of strengths and positive attributes of Jefferson County

	Word	Count	Similar Words
1	people	74	people, peoples
2	living	63	live, lives, living
3	community	55	communities, community
4	access	46	access, accessibility
5	diversity	45	diverse, diversity
6	parks	38	park, parks
7	UAB	36	UAB
8	activity	34	active, activities, activity
9	area	34	area, areas
10	family	33	families, family

In addition, throughout the data collection methods, participants identified a variety of specific organizations and services of particular importance to the health, well-being, and vibrancy of Jefferson County. These included UAB, the Jefferson County Department of Health, Cooper Green Mercy Health Services, Children's of Alabama, Lakeshore Foundation and a variety of non-profit social service and religious organizations.

Non-profit, social service and religious organizations noted within the CTSA included:

- The public library system,
- Health and social service organizations (M-Power ministries, The Dream Center and Church of the Highlands, YWCA, Firehouse Shelter, Dannon Project, United Ability, Magic City Acceptance Center)
- Parks (Avondale Park, Railroad Park, Red Mountain Park, the Birmingham Botanical Gardens, Aldridge Gardens,)
- Museums and cultural institutions (Vulcan Park, Birmingham Museum of Art, The Birmingham Zoo, The McWane Center)

Community Themes and Strengths Assessment Conclusion

The Community Themes and Strengths Assessment engaged community members in a variety of ways to provide information on the community's views about health and quality of life in Jefferson County, the county's strengths and its assets that impact health and quality of life in Jefferson County.

Appendix 1:

Your Opinion Matters! Survey

Community Themes and Strengths Survey

YOUR OPINION MATTERS!

Please complete this survey if you live, work, learn or play in Jefferson County. You do not have to give your name, and **your answers are anonymous**. Definitions of key terms (indicated by a star*) are on the last page.

Your Opinion Matters! survey is a part of a community health needs assessment for Jefferson County, Alabama. The word "community" means Jefferson County as a whole: its cities, unincorporated areas, neighborhoods and residents. This survey asks your opinions about Jefferson County, the good aspects and areas for improvement. The information will help improve health in the

coming years. Your information will help identify the key issues to be addressed in Jefferson County to improve health and quality of life.

This survey is available online at the following website: https://www.surveymonkey.com/r/RHHF8J8. Your Opinion Matters! is conducted in collaboration with the Local Public Health System and is coordinated by the Jefferson County Department of Health.

Instructions: Thinking about Jefferson County, Alabama, rank your satisfaction, how pleased you are, with the current condition or presence of each item and rate how important it is to your quality of life. Quality of life refers to your level of satisfaction with the combined conditions (e.g. safety, health, employment, etc.) in which you live. If you cannot rate an item, please leave it blank.

	Satisfaction					Importance		
	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied	Low Importance	Medium Importance	High Importance
Physical Environment								
Condition of Streets	1	2	3	4	5	1	2	3
Condition of Sidewalks	1 5	2	3	4		1	2	3
Neighborhood Conditions/Blight*	1 5	2	3	4		1	2	3
Public Transportation (buses, paratransit, etc)	1 5	2	3	4		1	2	3
Parks/Trails/ Outdoor Recreation	1 5	2	3	4		1	2	3
Bike Lanes/Sharrows*								

	① ⑤	②	③	④		①	②	③
Outdoor Air Quality*	① ⑤	②	③	④		①	②	③
River/ Stream Quality*	① ⑤	②	③	④		①	②	③
Control of Litter/ Graffiti	① ⑤	②	③	④		①	②	③
	Satisfaction					**Importance**		
	Very Dissatisfied	**Dissatisfied**	**Neutral**	**Satisfied**	**Very Satisfied**	**Low Importance**	**Medium Importance**	**High Importance**
Protection From Second-hand Smoke Exposure	① ⑤	②	③	④		①	②	③
Education								
Public Libraries	①	②	③	④	⑤	①	②	③
Child Care (Birth to Age 3)	①	②	③	④	⑤	①	②	③
Pre-school (Ages 3-5)	①	②	③	④	⑤	①	②	③

Kindergarten to 12th Grade	①	②	③	④	⑤		① ② ③	
Early Intervention/Special Education Services	①	②	③	④	⑤		① ② ③	
GED (General Educational Development)/Vocational Training	①	②	③	④	⑤		① ② ③	
Higher Education: Colleges/Universities/Community Colleges	①	②	③	④	⑤		① ② ③	
Health Access								
Access* to Primary Health Care (ex. Pediatrician, Family Doctor)	①	②	③	④	⑤		① ② ③	
Access to Specialty Care (ex. Heart Doctor, Lung Doctor)	①	②	③	④	⑤		① ② ③	
	Satisfaction						**Importance**	
	Very Dissatisfied	**Dissatisfied**	**Neutral**	**Satisfied**	**Very Satisfied**		**Low Importance**	**Medium Importance**	**High Importance**
Access to Long Term Care (ex. Nursing Home)	⑤ ①	②	③	④			① ② ③	
Access to Health Therapies (ex. Physical Therapy, Speech Therapy)	⑤ ①	②	③	④			① ② ③	

Access to Geriatric Care*	⑤ ① ② ③ ④	① ② ③
Access to Dental Care	⑤ ① ② ③ ④	① ② ③
Access to Mental Health Services	⑤ ① ② ③ ④	① ② ③
Access to Substance Abuse Treatment	⑤ ① ② ③ ④	① ② ③
Access to Health Insurance	⑤ ① ② ③ ④	① ② ③
Access to Prescription Medications, when needed	⑤ ① ② ③ ④	① ② ③
Access to Understandable Health Information	⑤ ① ② ③ ④	① ② ③
Access to Healthy Food	⑤ ① ② ③ ④	① ② ③
Access to Places to be Physically Active	⑤ ① ② ③ ④	① ② ③

	Satisfaction					Importance		
	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied	Low Importance	Medium Importance	High Importance
Public Safety								
Neighborhood/Community Safety*	①	②	③	④	⑤	①	②	③
Control of Drug-Related Crime	⑤ ①	②	③	④		①	②	③
Control of Gun Violence	⑤ ①	②	③	④		①	②	③
Economic								
Job Openings/Availability	⑤ ①	②	③	④		①	②	③
Access to Career Training/Workforce Development	⑤ ①	②	③	④		①	②	③
Access to Affordable Housing	⑤ ①	②	③	④		①	②	③
Access to Affordable Education	⑤ ①	②	③	④		①	②	③
Businesses Present in your Community	⑤ ①	②	③	④		①	②	③
Community								

	Satisfaction					Importance		
	Very Dissatisfied	**Dissatisfied**	**Neutral**	**Satisfied**	**Very Satisfied**	**Low Importance**	**Medium Importance**	**High Importance**
Social Interaction with Your Neighbors	⑤ ①	②	③	④		①	②	③
Ways to Participate in Your Community	⑤ ①	②	③	④		①	②	③
Leaders Who Are Responsive to Your Concerns	⑤ ①	②	③	④		①	②	③
Availability of Community Centers/Activities	⑤ ①	②	③	④		①	②	③
Access to Technology (Internet, Computers, etc.)	⑤ ①	②	③	④		①	②	③
Access to Arts and Cultural Events	⑤ ①	②	③	④		①	②	③
Access to Spiritual Support	⑤ ①	②	③	④		①	②	③

Programs*	Diverse programs make sure that all people in Jefferson County are given the opportunity to be healthy and thrive.							
After-school/Out-of-School Programs	⑤	①	②	③	④	①	②	③
Children's Programs/ Activities (ex. Soccer, Boy Scouts, Art, Music)	⑤	①	②	③	④	①	②	③
Teen Programs/Mentoring Activities	⑤	①	②	③	④	①	②	③
Programs for Adults with Disabilities	⑤	①	②	③	④	①	②	③
Senior* Programs	⑤	①	②	③	④	①	②	③

	Satisfaction					Importance		
	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied	Low Importance	Medium Importance	High Importance
Services*	Services to people in Jefferson County allow everyone to have a fair opportunity to live a long and healthy life.							
Services for People with Disabilities*	⑤	①	②	③	④	①	②	③
Services for Seniors*	⑤	①	②	③	④	①	②	③

Services for the LGBTQIA* Community	⑤	①	②	③	④			①	②	③
Services for the Homeless	⑤	①	②	③	④			①	②	③
Services for People with Limited English Proficiency*	⑤	①	②	③	④			①	②	③
Services for Violence Prevention and Recovery	⑤	①	②	③	④			①	②	③
Prison/Jail Re-entry* Services	⑤	①	②	③	④			①	②	③
Disaster Prevention and Response	⑤	①	②	③	④			①	②	③

Please rate your level of agreement with the statement below.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
There are support networks in Jefferson County for people and their families during times of need (financial, emotional, spiritual, etc.).	①	②	③	④	⑤

Please answer the following questions using the scale to the right of each question. If you cannot rate an item, please leave it blank.

	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
How satisfied are you with the quality of life in Jefferson County? Quality of life refers to your own level of satisfaction with the combined conditions (e.g. safety, health, employment) in which you live.	① ④	② ⑤	③		
	Poor	**Fair**	**Neutral**	**Good**	**Excellent**
How do you rate Jefferson County as a place to raise children?	①	②	③	④	⑤
How do you rate Jefferson County as a place to grow old?	①	②	③	④	⑤
How do you rate your own physical health?	①	②	③	④	⑤
How do you rate your own mental/emotional health?	①	②	③	④	⑤

Please answer the following questions to the best of your knowledge.

1. Please select all the conditions that are a problem in Jefferson County.

Ⓐ Asthma Ⓕ Diabetes Ⓙ Alzheimer's Disease/Dementia Ⓞ Teen Pregnancy Ⓣ Infant Mortality

Ⓑ Obesity Ⓖ Injuries Ⓚ Drug/Opioid/Alcohol Abuse Ⓟ Tobacco Use Ⓤ Poor Dental Health

Ⓒ Stroke Ⓗ Kidney Disease Ⓛ Other Chronic Conditions(ex. Arthritis) Ⓠ Stress Ⓥ COPD/Emphysema

Ⓓ Cancer Ⓘ Heart Disease Ⓜ Sexually Transmitted Diseases (STD's) Ⓡ Homicide Ⓦ High Blood Pressure

Ⓔ Blood Infection (Sepsis) Ⓝ Mental/Emotional/Behavioral Problems Ⓢ Other, please specify_____

2. The best thing about living, learning, working or playing in Jefferson County is _____.

3. The worst thing about living, learning, working or playing in Jefferson County is _____.

4. Which of the following describe you? *(Mark all that apply)*

① I live in Jefferson County ② I work in Jefferson County ③ I go to school in Jefferson County

④ I worship in Jefferson County ⑤ I visit Jefferson County for recreation and entertainment ⑥ Other, specify_____

5. Please add other thoughts or comments you would like to share.

_____

_____

Please provide the following demographic information. This information <u>will not</u> be used to identify you.

Community Themes and Strengths Assessment

1. In what zip code is your home located? _____

2. What is your age in years? _____

3. To what gender identity do you most identify?

① Female ② Male ③ Transgender Male ④ Transgender Female ⑤ Gender Variant/Non-Conforming

⑥ Not Listed, specify_____ ⑦ Prefer not to answer

4. Which group(s) best represent your race?

① American Indian or Alaska Native ④ Native Hawaiian or Pacific Islander ⑨ Prefer not to answer

② Asian ⑤ White or Caucasian

③ Black or African American ⑥ Other, specify _____

5. Are you of Hispanic or Latino origin or descent? ① Yes ② No ③ Prefer not to answer

6. What is the highest level of education you have completed?

① Less than 9th grade ③ Some High School ⑤ High School Graduate or GED

② Some College ④ College Graduate ⑥ Graduate Degree or Higher ⑦ Prefer not to answer

7. What is the main way you pay for your health care?

① Out of Pocket ④ Medicare ⑨ Prefer not to answer

② Private Health Insurance (e.g. BCBS, VIVA, etc.)

③ Medicaid/ALL Kids

⑤ Veteran's Administration

⑥ Other, specify _____

8. Do you have a visual, hearing, physical, emotional or intellectual disability? ① Yes ② No ③ Prefer not to answer

If you would like to receive a summary of the results please give your contact information below: **(Optional)**

Email _____ or Address _____
Zip Code _____

THANK YOU FOR YOUR RESPONSE
Please fax or return completed surveys to:
Jefferson County Department of Health
1400 Sixth Ave South
Birmingham, AL 35233
Attn: Quality Improvement and Decision Support

Fax Number: 205-930-1576

If you need help completing this form, please call:
Elisabeth Welty – (205) 930-1478 or Greg Townsend – (205) 930-1401

Thank You for Your Opinion….It Matters!

Glossary of Key Terms

Access - a way to get near, at, or to something or someone

Blight – an area that is ugly, neglected or rundown

Disabled – physical (seeing, hearing, walking, etc.), mental or emotional condition that limits activity especially in employment or education

Disaster - something (such as a flood, tornado, fire, etc.) that happens suddenly and causes major damage or loss to people

Geriatric Care – health care for elderly people

LGBTQIA – lesbian, gay, bisexual, transgender, queer, intersex, or asexual

Limited English Proficiency – a person who is not fluent in English

Outdoor air quality – the level of small particles, car exhaust, smoke, road dust, factory emissions, pollen, smog, etc. in the air

Programs – programs are a way for people to engage and be active in the community and include things like camps, groups and recreational activities related to your personal interests

Quality of life - Quality of life refers to your personal level of satisfaction with the combined conditions in which you live.

Re-entry - refers to the transition of offenders from prisons or jails back into the community

River/stream quality – the level of trash, chemical waste and agricultural (pesticides, fertilizers, etc.) waste in the waterways

Safety – a place that is free from harm or danger

Second-hand smoke exposure - smoke from a cigarette, cigar, etc., that is exhaled or given off by the smoker and is inhaled by persons nearby

Seniors – people age 55 and older

Services – help and provisions for people in Jefferson County

Sharrows – a street marking on a road designating where to ride a bicycle

Substance abuse – dependence on an illegal or legal drug(s), prescription drug(s) or alcohol in which the user consumes the substance in amounts or with methods that are harmful to themselves or others

Appendix 2:

Community Themes and Strengths Focus Group Guide

Community Themes and Strengths Focus Group Guide
(8-12 people)

[Inform attendees entering that providing their information on the sign-in sheet is optional]

Opening

Welcome to the Community Matters Community Themes and Strengths Focus Group. My name is _____ and with me today are _____ and _____. Thank you for taking the time to share your opinions about Jefferson County. This focus group is a part of a large community health needs assessment, visioning and planning process for Jefferson County, Alabama. We conducted a similar assessment in 2014. The information we gathered helped to identify key issues in Jefferson County communities such as health disparities, lack of places to be physically active and mental health needs in the community. Since then we have implemented things like Zyp bikeshare, the Resource Recovery Center and other positive changes in Jefferson County.

We are here with you today to get your thoughts and experiences as residents of Jefferson County. We want your opinions and there is not a right or wrong answer to any of these questions. The information you share with us will give us insight into some of the concerns and points of pride for Jefferson County residents and will help direct our efforts in the coming years. We recognize that your time is valuable and this focus group will last about 90 minutes. We appreciate your participation.

Confidentiality

Your comments during this focus group session will remain confidential. If you do not feel comfortable using your real name please feel free to use a fake one. We will report summaries of the comments made today but your name will not be attached to the comment. In addition, we will not share who was present. Please do not discuss what was said by people here with others when you leave.

Ground Rules

Your input is important and we want to make sure we accurately capture what you tell us. Therefore, we would like to take notes and tape record this focus group. After we are finished using the tapes for this focus group they will be destroyed. Is this okay with you? Please speak

clearly and do not interrupt when others are speaking. If you cannot hear what I am saying or what someone else is saying, please ask us to speak up. Do you have any questions before we get started?

Introduction (5 min)

Let's go around the room to give everyone the opportunity to introduce themselves and tell us:

1. How long have you lived in Jefferson County?
    - Probe: If you are new to the area what brought you here?

Changes over Time (15 min)

Think about your community over the past 5 years:

1. Is there anything different about your community now that was not the case 5 years ago?
    - Probe: Describe how your community has changed over the past 5 years.
    - Probe: What do you think about these changes? Do you consider them to be good or bad changes?

2. Is there anything you want to change about your community in the next 5 years?
    - Probe: What changes would you make and why?
    - Probe: How could those changes in your community be achieved?

Strengths and Weaknesses (25 min)

1. If you knew someone was thinking about moving to your community, what would you tell him or her about the area to convince them to move?
    - Probe: What are some other good things about your community?

2. Are people from all ages, abilities, races and ethnicities able to be involved and engaged in your community?
    - Probe: What barriers are there to having a good quality of life for people of different ages, abilities, races and ethnicities in your community?

3. Are there people, places or organizations in your community that are looked to when things need to be done or when people need help?
    - Probe: Who are these people and why do people look to them?
    - Probe: What groups or organizations exist in the community?

4. Do you believe your community and/or Jefferson County can be improved?

- Probe: What are specific things that need to be improved in Jefferson County?
- Probe: What community groups, individuals or organizations should play a role in the improvement?

Community Health (25 min)

1. Do you consider Jefferson County to be a healthy community?
   - Probe: What makes it a healthy community or why wouldn't you consider Jefferson County to be a healthy community?

2. What health problems do people in your community have? (e.g. Heart disease, high blood pressure, depression, asthma, allergies, cancer, sexually transmitted infections)
   - Probe: Why do these health problems exist?

3. Where do people in your community go if they have health problems?
   - Probe: Do they seek care?
   - Probe: What actions do they take to obtain health care?

4. Do you have environmental health concerns?
   - Probe: Water quality, air quality, food safety, animal control, illegal dumping, etc.

Closing (5 min)

[Briefly summarize main points of discussion]

1. Think about the issues we have talked about today, what issues do you think are the most important for your community to address?

2. Think about the strengths in your community we have talked about today, what do you think is the community's greatest strength?

3. Is there anything else we have not asked about that is important for us to know about your community?

Thank you for your participation! [Reiterate that their thoughts will be summarized to direct the Jefferson County assessment, visioning and planning process.]

Appendix 3:

Themes by Focus Group and Survey Comments

Themes	CTSA	Survey	Overall
Transportation	15	14	29
Crime/Violence	13	15	28
Access to Services (Affordable care/medication/Medicaid)	14	8	22
Environmental Concerns (Air, Water, Illegal Dumping, Animal Control)	11	11	22
Education	8	12	20
Mental Health	12	1	13
Fragmentation of Government	7	9	16
Infrastructure	9	13	22
Affordable/accessible Housing	10	3	13
Drugs/Opioid Crisis	1	6	7
Changing Demographics (Diversity, Poverty, Age)	5	10	15
Blight	6	4	10
Biases	4	5	9
Job Opportunities and Training	3	7	10
Food System	2	2	4

THEME	Homeless Population #1	Formerly Incarcerated	Northern Area	People with Disabilities #1	People with Disabilities #2	Non-Profits	Southern	Young Adults #1	Seniors #1	Western	PH Professionals	Seniors #2	Seniors #3	Hispanic #1	Hispanic #2	Young Adults #2	CTSA Summary
Access to Services (Affordable care/medication/Medicaid)	1		1	1	1		1	1	1	1	1	1	1		1		12
Affordable/accessible Housing		1	1		1	1			1	1		1	1	1		1	10
Biases	1			1		1		1			1	1				1	7
Blight	1	1	1			1		1	1			1	1		1		9
Changing Demographics (Diversity, Poverty, Age, etc)	1		1			1	1	1			1		1				7
Chronic Conditions							1			1				1			3
Crime/Violence	1	1	1			1	1	1		1		1	1	1	1		11
Drugs/Opiod Crisis		1		1			1							1			4
Education		1	1					1	1		1	1		1	1	1	9
Environmental Concerns (Air, Water, Illegal Dumping, Animal Control)		1	1			1	1	1	1	1		1	1			1	10
Food System	1						1	1				1	1				5
Fragmentation of Government	1		1	1		1	1	1		1	1					1	9
Homelessness		1				1		1	1								4
Infrastructure	1				1			1	1	1		1	1	1	1	1	10
Job Opportunities and Training	1	1		1		1				1		1		1			7
Mental Health	1	1	1		1	1	1	1	1		1	1					10
Policing										1		1	1		1		4
Senior Services			1			1	1		1								4
Transportation	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	15

Appendix 4:

Community Themes and Strengths Assessment Sub-committee Members

The Community Themes and Strengths Assessment Sub-committee members were: Greg Townsend, Elisabeth Welty, Bryn Manzella, Monique Mullins, Haskey Bryant, Adriana Valenzuela, Cathy Perdue, Brian Massey, John Stone, Celida Garcia, Jan Bell, Tawanna Wright, Chris Hatcher, Ryan Parker, Sally Allocca, Maxine Starks, Terrence Brown, Catherine Alexander, Frederick Hamilton, David Smith, Chris Mackie, Brad Watson, Sandra Smith, Elizabeth Patton, Gary Edwards, Lisle Hites, and Julie Preskitt.

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Local Public Health System Assessment

Jefferson County, Alabama

ASSESSMENT, VISIONING, AND PLANNING
COMMUNITY MATTERS
FOR A HEALTHY JEFFERSON COUNTY

October 2019

Overview of the Local Public Health System Assessment

The Local Public Health System Assessment (LPHSA) was one of the four Mobilizing for Action through Planning and Partnerships (MAPP) assessments informing this document. The LPHSA is completed using the National Public Health Performance Standards (NPHPS or Performance Standards) Local Instrument. The Performance Standards Local Instrument measures how well system partners provide public health services using a nationally recognized set of optimal performance standards by answering the following questions:

- *What are the components, activities and capacities of our public health system?*
- *How well are the 10 Essential Public Health Services being provided in our public health system?*

Performance Standards Background

Under the leadership of the Centers for Disease Control and Prevention and its partner organizations, the Performance Standards were developed and launched in 1997 by national, state and local experts in public health. The Performance Standards describe an optimal level of performance and capacity to which all local public health systems can aspire. The goal of the Performance Standards is to promote continuous improvement by providing benchmarks by which the local public health system can be assessed to help identify areas of strength, weakness, and short and long-term improvement opportunities. The dialogue that occurs among participants in completing the Performance Standards Local Instrument leads to a better understanding of the public health system's functioning and performance and can facilitate informed, effective policy and resource decisions to improve the public health system.

The Performance Measures use the 10 Essential Public Health Services shown in Figure 2 to provide the framework for the local instrument by describing the public health activities that should be undertaken in all local public health systems.

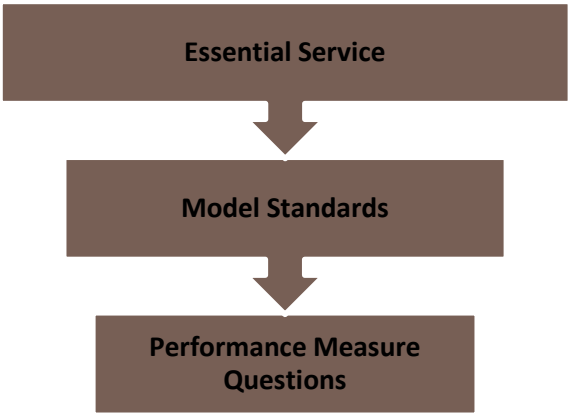
FIGURE 2

The Essential Public Health Services

1. Monitor health status to identify community health problems.
2. Diagnose and investigate health problems and health hazards in the community.
3. Inform, educate and empower people about health issues.
4. Mobilize community partnerships to identify and solve health problems.
5. Develop policies and plans that support individual and community health efforts.
6. Enforce laws and regulations that protect health and ensure safety.
7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable.
8. Assure a competent public health and personal health care workforce.
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services.
10. Research for new insights and innovative solutions to health problems.

Within the NPHPS Local Instrument, each essential service includes two to four model standards describing optimally performing public health system. Model standard include two to five performance measure questions assessing the local public health system's performance (See Figure 3).

FIGURE 3: NPHPS Local Instrument Format



Assessment Planning

The LPHSA Sub-committee for Jefferson County, Alabama was established to direct the assessment. Members of this Sub-committee were expected to contribute to the completion of the LPHSA, recruit and train instrument facilitators and engage potential participants through recruitment, orientation, assessment and follow-up. The LPHSA Coordinator determined that the assessment would be completed through 10 independent essential service sessions. Two facilitators were recruited for each essential service assessment session, with the primary facilitator leading the group through the instrument and the secondary facilitator serving as the scribe. Several meetings identified and recruited assessment facilitators and participants for completing the overall assessment. Orientation sessions were held to prepare recruited facilitators.

Assessment Administration

The LPHSA was completed through the administration of the National Public Health Performance Standard (NPHPS) Local Instrument, which is structured using the 10 Essential Services of Public Health. Ten individual Essential Service assessment sessions were completed between October 22, 2018 and November 6, 2018 at JCDH with public health professionals and community leaders representing both public and private organizations, as well as Jefferson County community representatives.

LPHSA participants were assigned to Essential Service Sessions based on the main function(s) of the organization represented and the individual's role within that organization. Trained facilitators in each Essential Service Session guided participants through a review of Jefferson County's Local Public Health System activities via the Local Instrument's discussion questions. After a thorough discussion, participants were asked to reach consensus about the level of activity for each performance measure using voting cards with the response options provided in Table 1. Participants voted on the public health system's level of activity, not the level of activity of his or her individual organization. Final scores were determined either by consensus or by averaging the votes, when multiple attempts at gaining consensus failed.

TABLE 1: Performance Assessment Scoring

Optimal Activity (76-100%)	Greater than 75% of the activity described within the question is met.
Significant Activity (51-75%)	Greater than 50%, but no more than 75% of the activity described within the question is met.
Moderate Activity (26-50%)	Greater than 25%, but no more than 50% of the activity described within the question is met.
Minimal Activity (1-25%)	Greater than zero, but no more than 25% of the activity described within the question is met.
No Activity (0%)	0% or absolutely no activity.

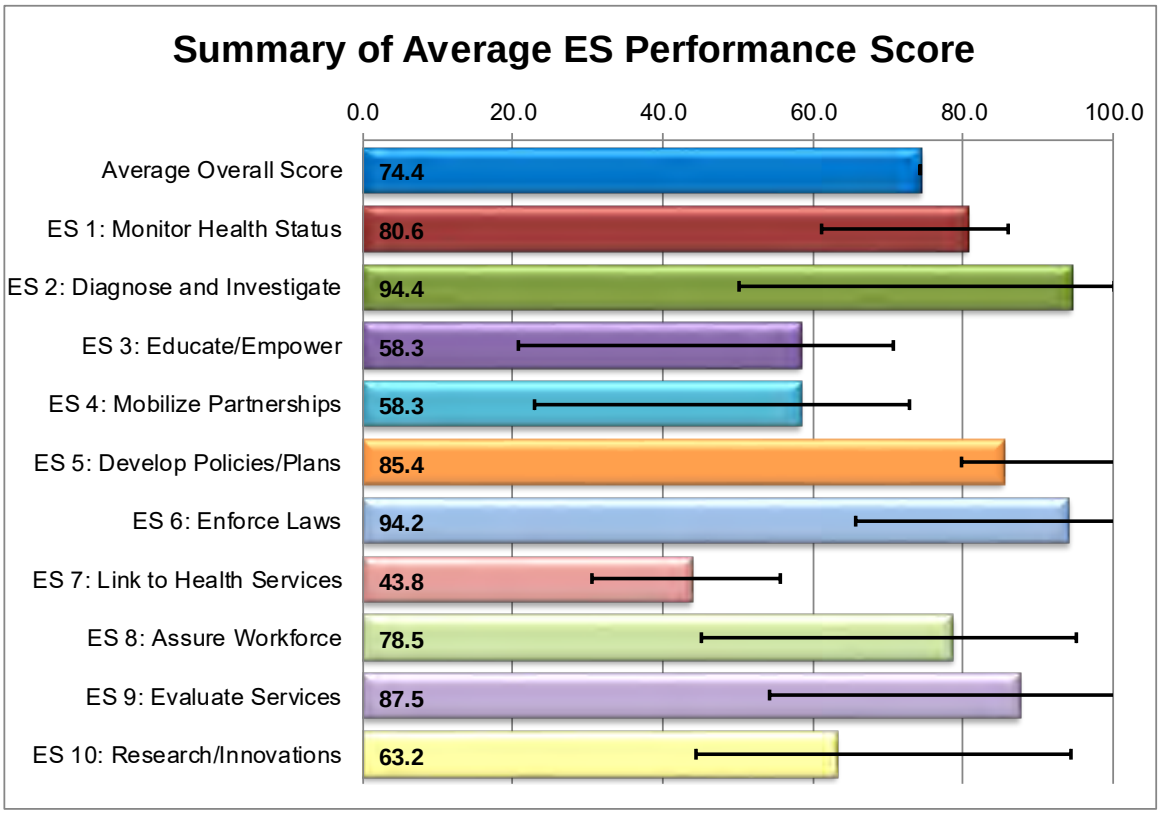
Data collected during the ten assessment sessions were electronically submitted to the Public Health Foundation for analysis of the quantitative performance measures. A review and interpretation of the

qualitative data collected during the Essential Services sessions were analyzed. Observations from the qualitative data were coded and classified into four major themes: strengths, weakness, short-term opportunities and long-term opportunities.

Executive Summary

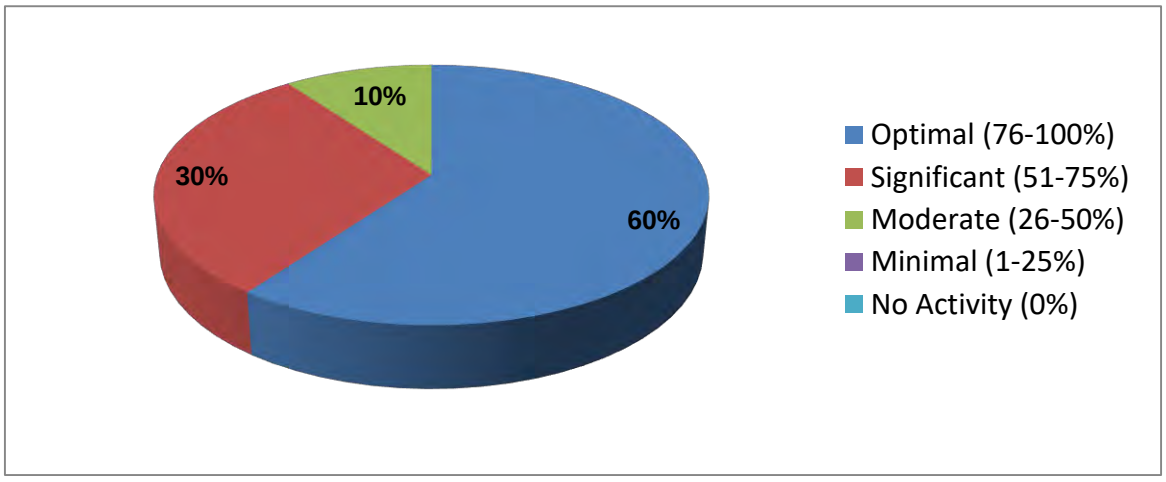
Figure 4 provides a summary of the average mean score and the mean score from each Essential Service received using NPHPS Local Instrument. The mean overall score for Jefferson County's Local Public Health System was 74.4, which represents significant activity. Among the 10 Essential Services, Essential Service 2: Diagnose and Investigate Health Problems and Health Hazards in the Community, with a score of 94.4, received the highest activity rating representing optimal performance. The lowest overall Essential Service score, 43.8, was from Essential Service 7: Link people to needed personal health services and assure the provision of healthcare when otherwise available. Six of the ten Essential Services were evaluated at the optimal activity level (76-100%), while three Essential Services were rated as achieving significant activity level (26-50%). None of the Essential Services were rated at the minimal (1-25%) or no activity (0%) levels.

FIGURE 4: Essential Service Performance Scores



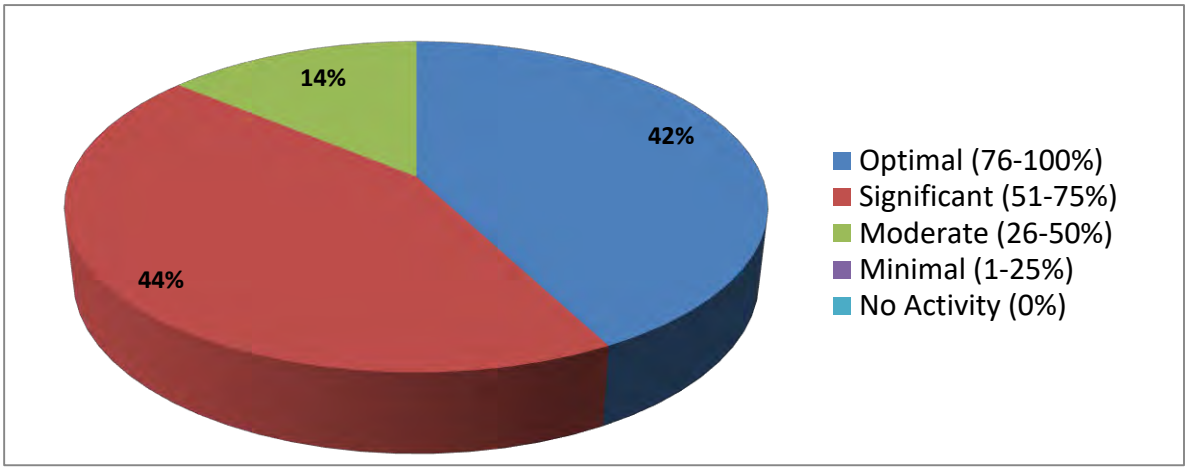
Jefferson County Public Health System's performance in each of the 10 Essential Services fell within the highest three rating categories. Figure 5 provides the percentage of Essential Services scored within each rating category. None of the essential services were rated within the no activity or minimal categories.

FIGURE 5: Essential Services Scores and Activity Level Categories



Jefferson County Public Health System's performance on each of the thirty model standards scored within the optimal to moderate activity levels (Figure 6).

FIGURE 6: Model Standard Scores by Activity Level and Categories



Overall discussion analysis revealed the following strengths, weaknesses, short-term opportunities and long-term opportunities across the 10 Essential Services.

Strengths

- Established protocols (e.g., emergency preparedness), plans (Community Health Assessment and Community Health Improvement Plan) and surveillance systems
- New partnerships and initiatives provide education, technical assistance, training and resources to facilitate collaboration and linkages across organizations, communities and public health sectors

Weaknesses

- Lack of awareness among local public health system partners of community health assessments, emergency plans and environmental laws and regulations
- Lack of unavailability of chronic disease morbidity data for surveillance, planning and evaluation
- Need for increased diversity and inclusion in partnerships and collaborations

Short-term Improvement Opportunities

- Increase awareness of and participation in existing coalitions by local public health system partners across public health sectors
- Increase accessibility of public health assessments, plans and data and awareness of public health laws and regulations

- Increase diversity in partnerships and enhance the engagement and education of community residents from diverse sub-populations.

Long-term Improvement Opportunities

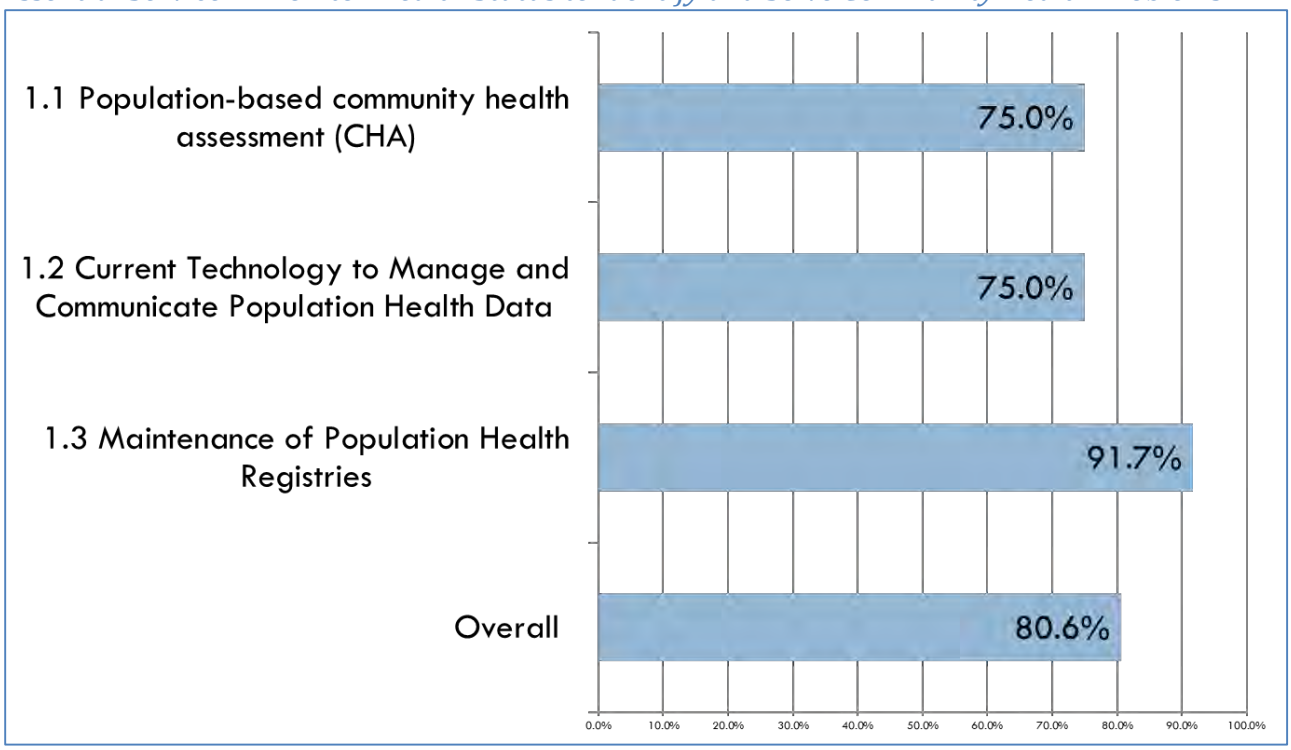
- Establish a centralized research clearinghouse and state-wide hospital discharge database
- Increase funding to provide essential public health services and capacity to evaluate public health policies, procedures and outcomes
- Increase collaboration and coordination among local public health system partners in advocating for public health policy adoption at the local and state level

Individual Essential Service Scoring

The following graphs and findings are intended to aid the local public health system serving Jefferson County in understanding its collective performance and to strengthen the local public health system. For each Essential Service and its corresponding Model Standards, a bar graph depicting the overall score for the Essential Service, as well as the scoring, expressed as a percentage, representing the degree to which the activity described in the Model Standard is conducted, followed by qualitative findings from the Essential Service breakout discussion are provided.

FIGURE 7

Essential Service 1: Monitor Health Status to Identify and Solve Community Health Problems



The overall performance score for Essential Service 1: Monitory Health Status to Identify and Solve Community Health Problems was 80.6%, indicating optimal activity.

Strengths

- Availability of communicable disease population health registries
- Robust county Community Health Assessment and Community Health Improvement Plan
- Improved availability and usage of targeted data to inform neighborhood-level initiatives and decision making
- Increased data collection, analysis and dissemination collaboration and coordination across agencies

Weaknesses

- Lack of a comprehensive clearing house of assessment activities and reports
- Lack of awareness of community health assessments and data
- Lack of chronic disease morbidity data and registries
- Lack of understanding among some LPHS partners and residents of data nuances, including changes in data collection and coding methodologies

Short-Term Improvement Opportunities

- Increase awareness by community residents of available assessments and data
- Increase understanding about data nuances among LPHS partners and county residents
- Establishment of a hospital discharge database

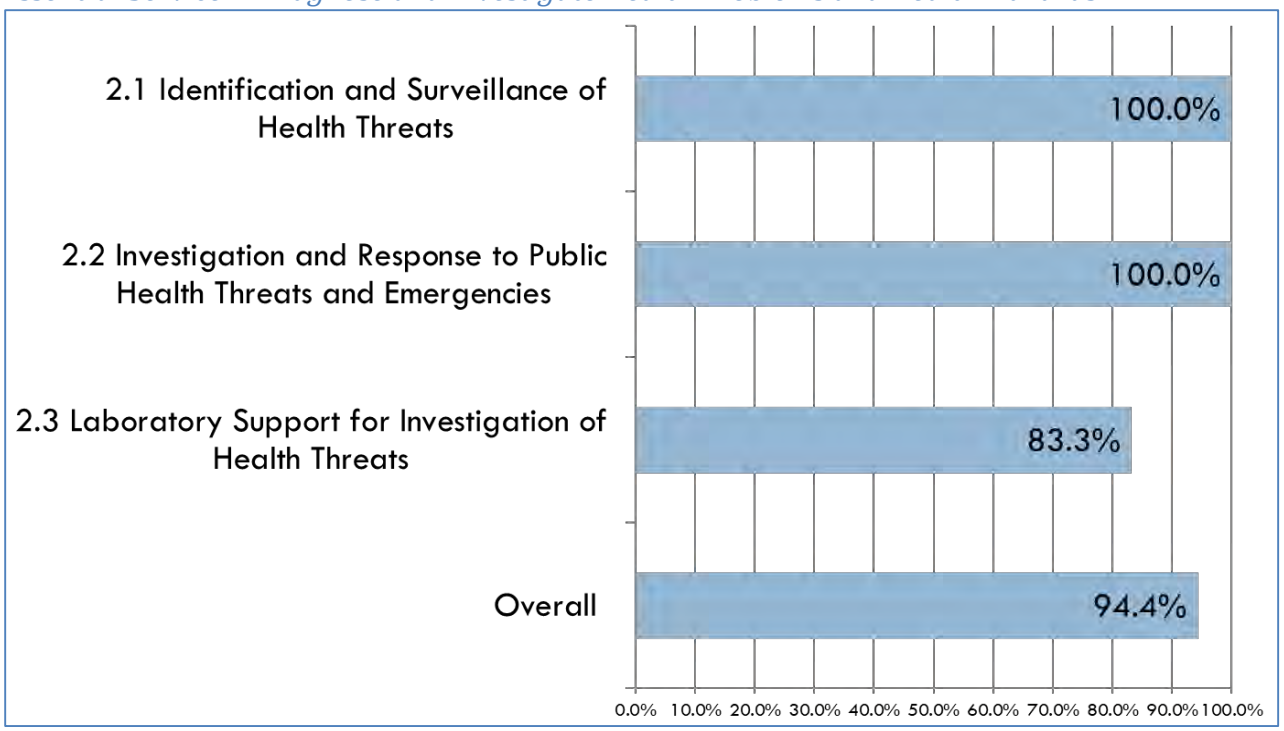
- Development of data sharing agreements and infrastructure to decrease turnaround time for accessing health-related data

Long-Term Improvement Opportunities

- Increase capacity among LPHS to utilize best available technology for health initiatives
- Establishment of state-wide data depository

FIGURE 8

Essential Service 2: Diagnose and Investigate Health Problems and Health Hazards



The overall performance score for Essential Service 2: Diagnose and Investigate Health Problems and Health Hazards was 94.4%, indicating optimal activity.

Strengths

- Established emergency and disease outbreak preparedness protocols, surveillance systems and partnerships
- Presence of community-based, emergency-focused coalitions of community residents, organizations and emergency service providers
- Established county systems for recruiting general and healthcare-related personnel for emergencies

Weaknesses

- Lack of information sharing between payers and public health surveillance systems, especially for chronic diseases
- Lack of established protocols in some school districts for sharing of information and increasing cooperation between doctors, parents and schools nurses regarding student exposure from international travel-related exposures and illnesses

Short-Term Improvements

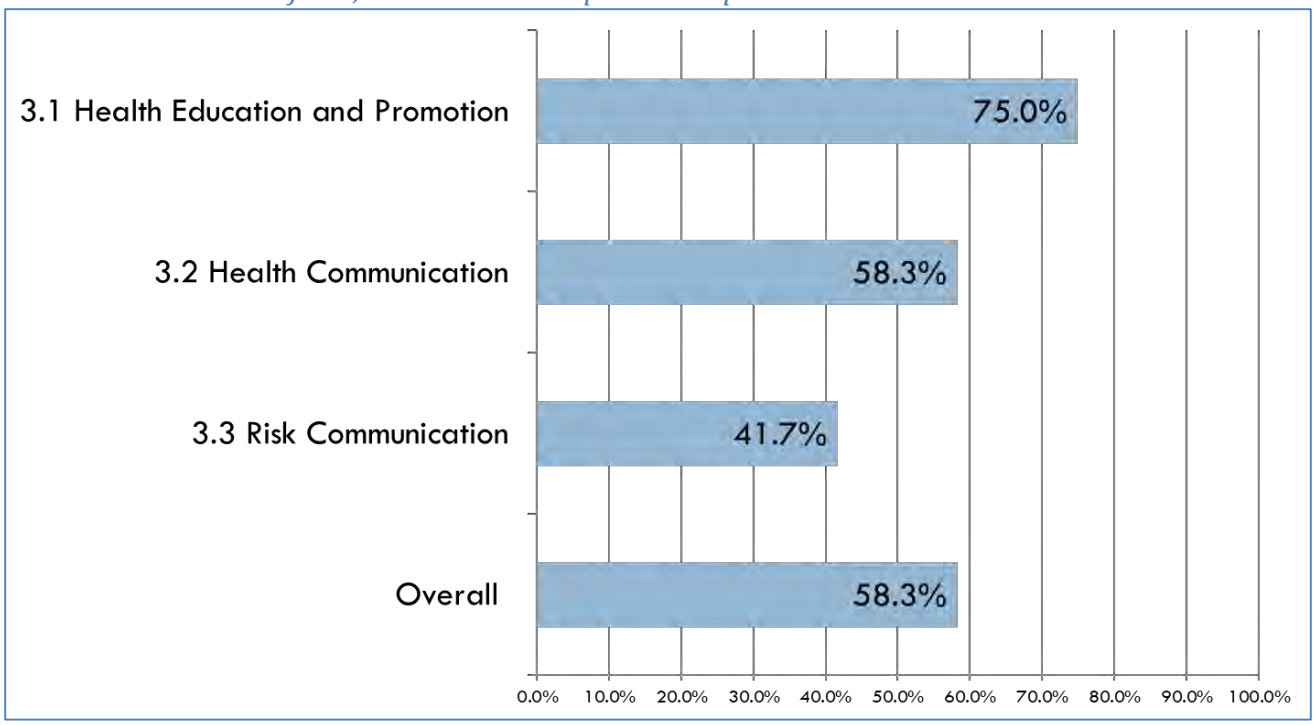
- Establish protocols and policies for increasing surveillance and reporting at the school level
- Increase communication between emergency-focused agencies and other LPHS partners (schools, payers, etc.)
- Develop state-wide system for emergency volunteer and response teams based on the type of emergency
- Share written documents on emergency management procedures with local public health system partners

Long-Term Improvements

- Improve the availability and accessibility of accurate state and national data
- Identify all surveillance systems at the local, state and federal levels and utilize the best surveillance systems available

FIGURE 9

Essential Service 3: Inform, Educate and Empower People about Health Issues



The overall performance score for Essential Service 3: Inform, Educate and Empower People about Health Issues was 58.3%, indicating significant activity.

Strengths

- Increased use of lay health advisors to disseminate information to the community
- Individual LPHS partners maintain comprehensive health communication and education plans
- Increased use of multiple communication channels (printed materials, webcast, social media, text messaging, media coverage, etc.) to disseminate health and risk messaging

Weaknesses

- Lack of involvement of the target audience in the development of health messaging
- Lack of coordination among the LPHS in health communication
- The public unaware of risk communication and post-emergency plans

Short-Term Improvement Opportunities

- Expand community networks to reach marginalized populations

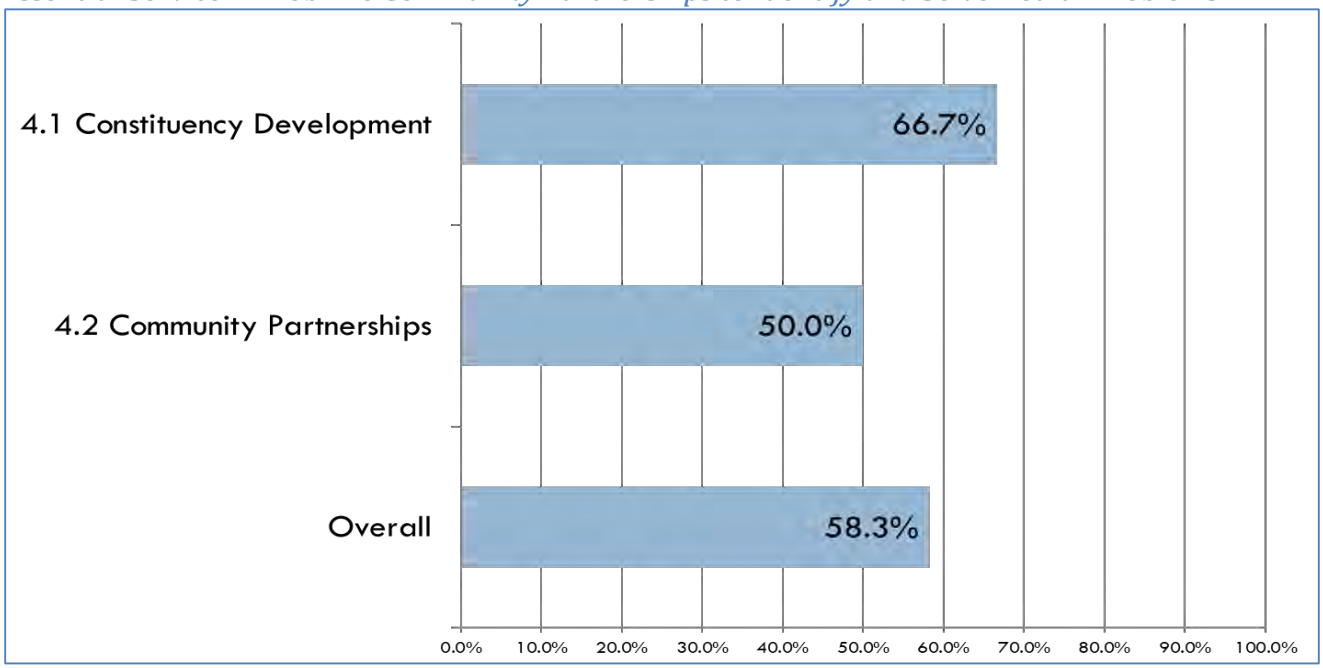
- Evaluate communication and health education plans to measure effectiveness and degree to which information reached the intended audiences
- Increase risk communication and awareness of emergency plans prior to an emergency event

Long-Term Improvement Opportunities

- Increase coordination of health messaging and health information across LPHS partners
- Increase collaboration with non-traditional LPHS partners to expand reach of health messaging

FIGURE 10

Essential Service 4: Mobilize Community Partnerships to Identify and Solve Health Problems



The overall performance score for Essential Service 4: Mobilize Community Partnerships to Identify and Solve Health Problems was 58.3%, indicating significant activity.

Strengths

- Existing community partnerships address a plethora of public health issues (built environment, mental health, healthcare, infant mortality, financial stability, education, emergency preparedness, congregation health, etc.)
- Existing established partnerships provide technical assistance and resources to create additional partnerships and alliances reaching new geographic areas and emerging public health issues

Weaknesses

- Lack of community engagement in community partnerships and need to broaden the spectrum of ability, race, ethnicity, sexual orientation and gender identity represented within community partnerships
- Lack of engagement of general public on public health issues
- Lack of diversity among partnership leaders

Short-Term Improvement Opportunities

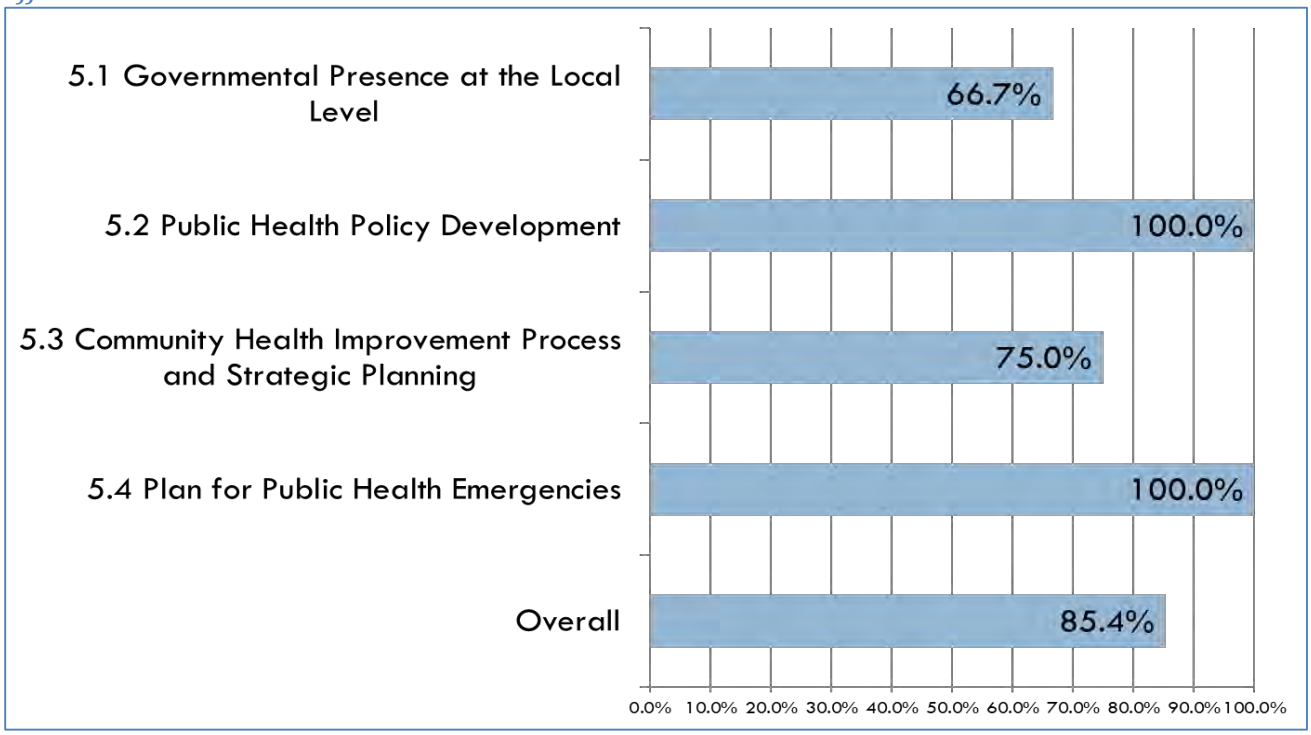
- Improved communication, data sharing and engagement with the general public
- Increase diversity in partnership membership and leadership
- Increase collaboration in advocacy activities addressing the root causes of public health issues

Long-Term Improvement Opportunities

- Increased voice in who represents public health at the state level and engagement with elected officials
- Evaluation of the effectiveness of community health partnerships in achieving stated goals
- Maintain partnership sustainability and increase capacity to solve complex problems and measure impact of interventions designed to resolve health issues

FIGURE 11

Essential Service 5: Develop Policies and Plans That Support Individual and Community Health Efforts



The overall performance score for Essential Service 5: Develop Policies and Plans that Support Individual and Community Health Efforts was 85.4%, indicating optimal activity.

Strengths

- Robust comprehensive emergency plans with imbedded processes for continuous evaluation and plan refinement
- Jefferson County Department of Health is the first health department in the state of Alabama to receive accreditation through the Public Health Accreditation Board
- Development and maintenance of the Community Health Improvement Plan for Jefferson County, Alabama with over 100 partners

Weaknesses

- Lack of availability and accessibility of emergency plans for community members
- LPHS needs support to educate the general community on policy development, improvement and implementation
- Lack of a streamlined process for informing and receiving feedback from the LPHS on proposed policies and plans

Short-Term Improvement Opportunities

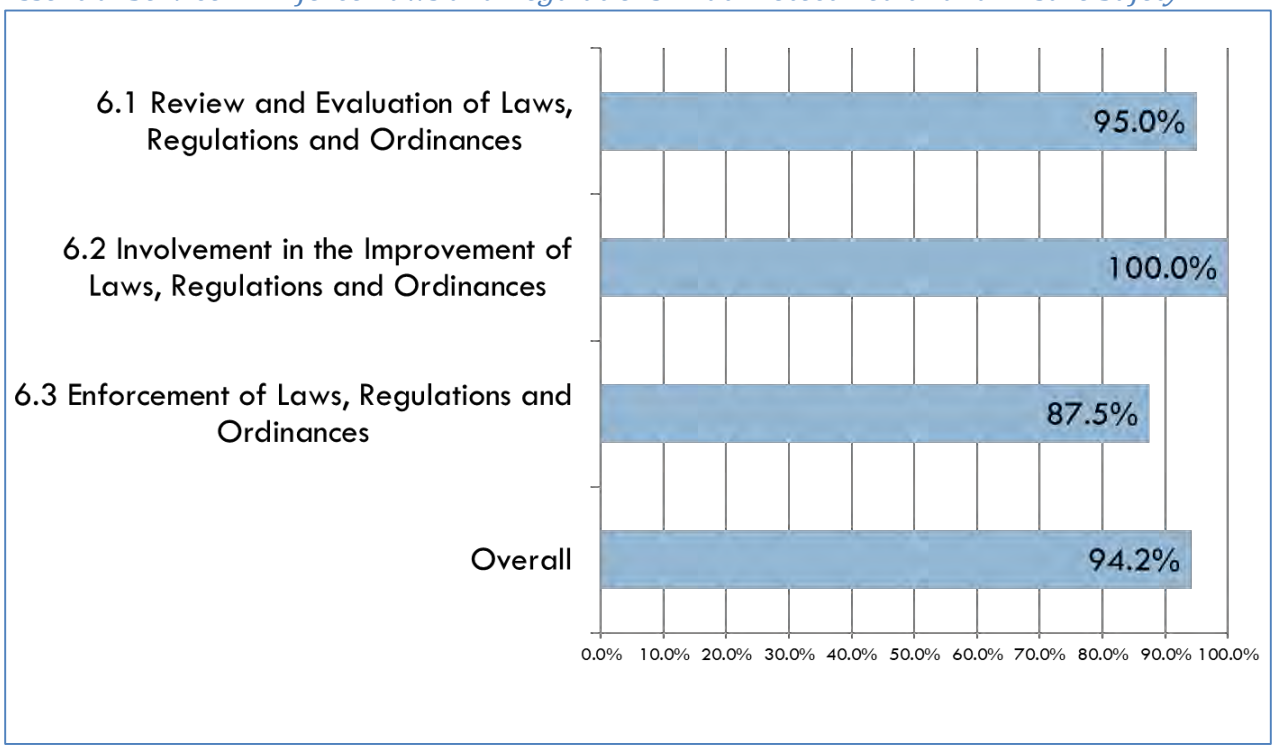
- Increase communication to general public and LPHS about the agencies regulating each area of public health (e.g., air and soil pollution, open burning, etc.)
- Increase engagement and education of community residents in policy and plan development processes

Long-Term Improvement Opportunities

- Increase funding for the review of public health policies and identify entities to assist smaller agencies in reviewing policy
- Overcome silos in emergency response, regardless of municipality or jurisdiction and increase communication, collaboration and coordination among emergency providers

FIGURE 12

Essential Service 6: Enforce Laws and Regulations That Protect Health and Ensure Safety



The overall performance score for Essential Service 6: Enforce Laws and Regulations That Protect Health and Ensure Safety was 94.2%, indicating optimal activity.

Strengths

- Established processes to alert the public to review and provide feedback on new and revised laws, regulations and ordinances
- Many cities and municipalities within Jefferson County have Complete Streets and Comprehensive Smoke-Free ordinances
- **Weaknesses**
- Lack of capacity to monitor and enforce boarding home regulations and to close illegal boarding homes
- Lack of willingness to prosecute regulation violations at the municipality level
- Lack of public awareness of some existing laws, regulations and ordinances

Short-Term Improvement Opportunities

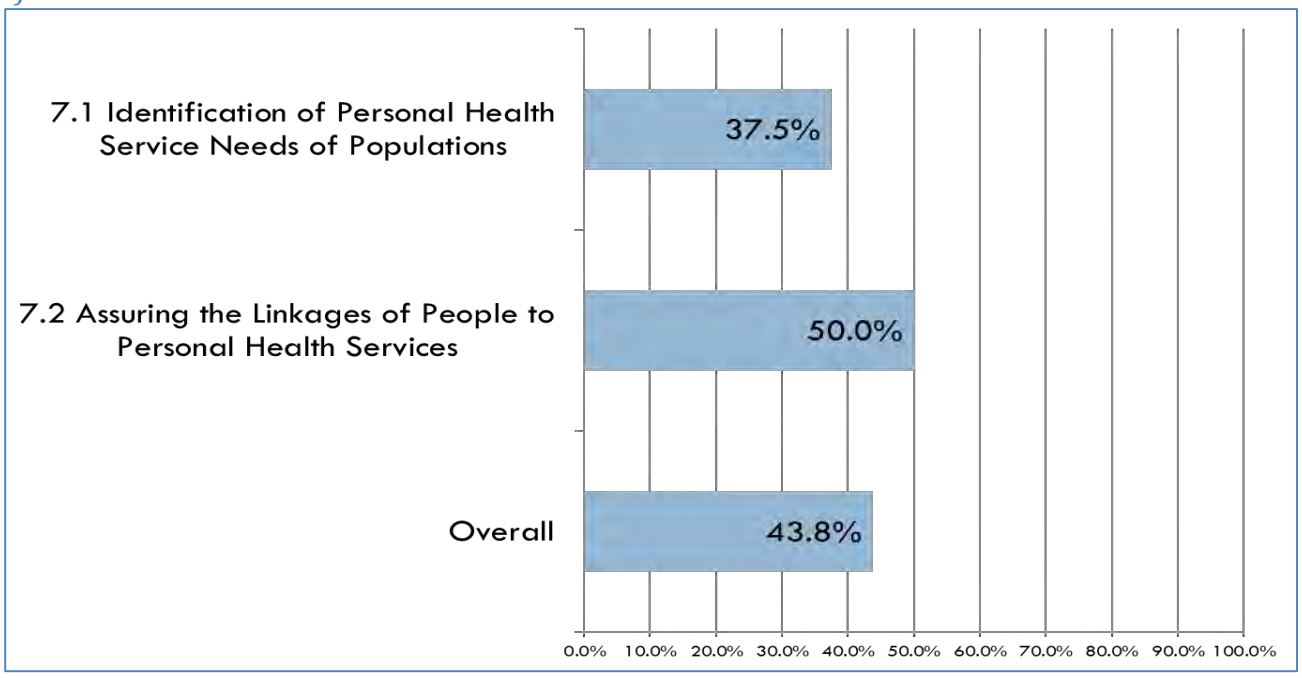
- Develop strategies to disseminate information about compliance with laws and regulations to LPHS partners
- Increase prevention education regarding emerging public health issues (e.g., gun violence, rabies, dogs in restaurants, etc.)

Long-Term Improvement Opportunities

- Expand the development and implementation of Complete Street ordinances and smoke-free protections to additional municipalities within Jefferson County
- Increase capacity to enforce boarding home regulations

FIGURE 13

Essential Service 7: Link People to Needed Personal Health Services and Assure the Provision of Healthcare When Otherwise Unavailable



The overall performance score for Essential Service 7: Link People to Needed Personal Health Services and Assure the Provision of Healthcare When Otherwise Unavailable was 43.8%, indicating moderate activity.

Strengths

- Needs assessments have been conducted to identify barriers to care, including specific barriers for sub-populations
- Stakeholder groups are established and serve as mechanisms for resource sharing
- New initiatives exist linking vulnerable populations to services and providing healthcare system navigation

Weaknesses

- Lack of strategies to resolve identified barriers to care
- Lack of a centralized resource referral system to determine resource availability and the utilization
- Lack of awareness that the disabled, LGBTQIA, undocumented and HIV sub-populations have unique barriers and needs related to personal health services

Short-Term Improvement Opportunities

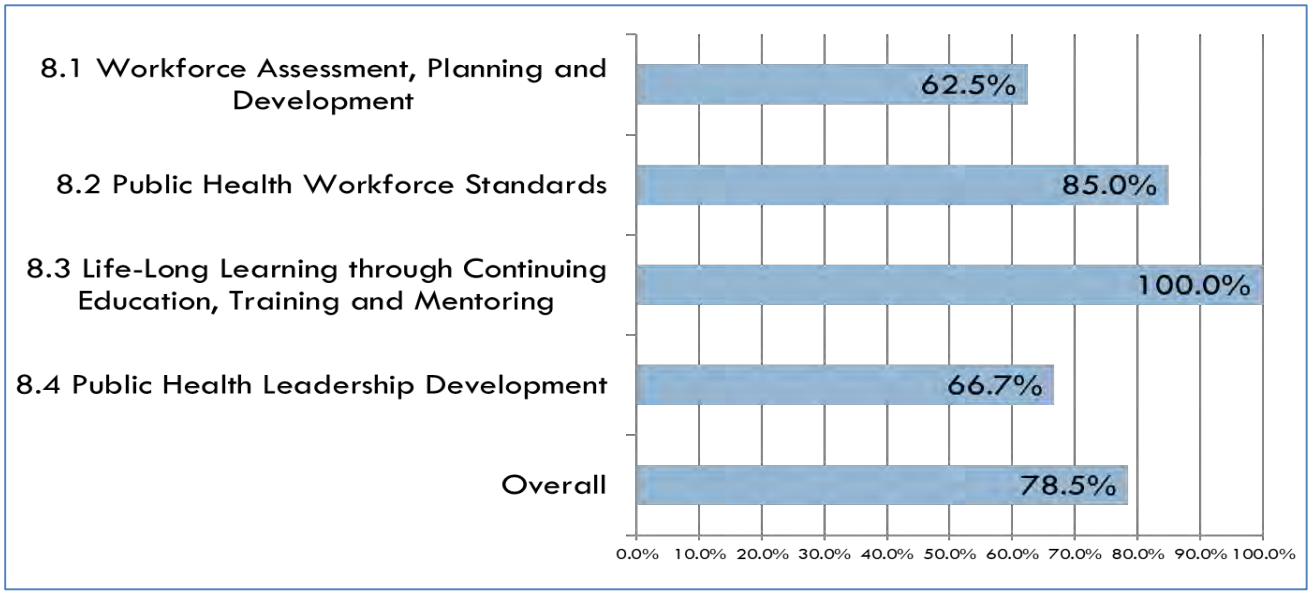
- Increase awareness of the needs assessments available and increase utilization of assessment results in planning strategies
- Assess the optimal process for reaching special populations in health promoting care utilization
- Combine community outreach efforts for efficiency and effectiveness

Long-Term Improvement Opportunities

- Conduct a targeted and relevant needs assessment focused on historically marginalized sub-populations that ask most relevant questions
- Aggregate data across agencies to inform policies

FIGURE 14

Essential Service 8: Assure a Competent Public Health and Personal Healthcare Workforce



The overall performance score for Essential Service 8: Assure a Competent Public Health and Personal Healthcare Workforce was 78.5%, indicating optimal activity.

Strengths

- Established processes for background and licensure checks including tracking licenses and continuing education units
- Availability of many emergency preparedness trainings opportunities, including those for volunteers and the general community

Weaknesses

- With no comprehensive public health workforce needs assessment, training gaps and opportunities to leverage resources are unknown

- Lack of awareness of the social determinants of health and health equity principles beyond traditional public health partners
- Prior attempts to create collaborations in training have failed

Short-Term Improvement Opportunities

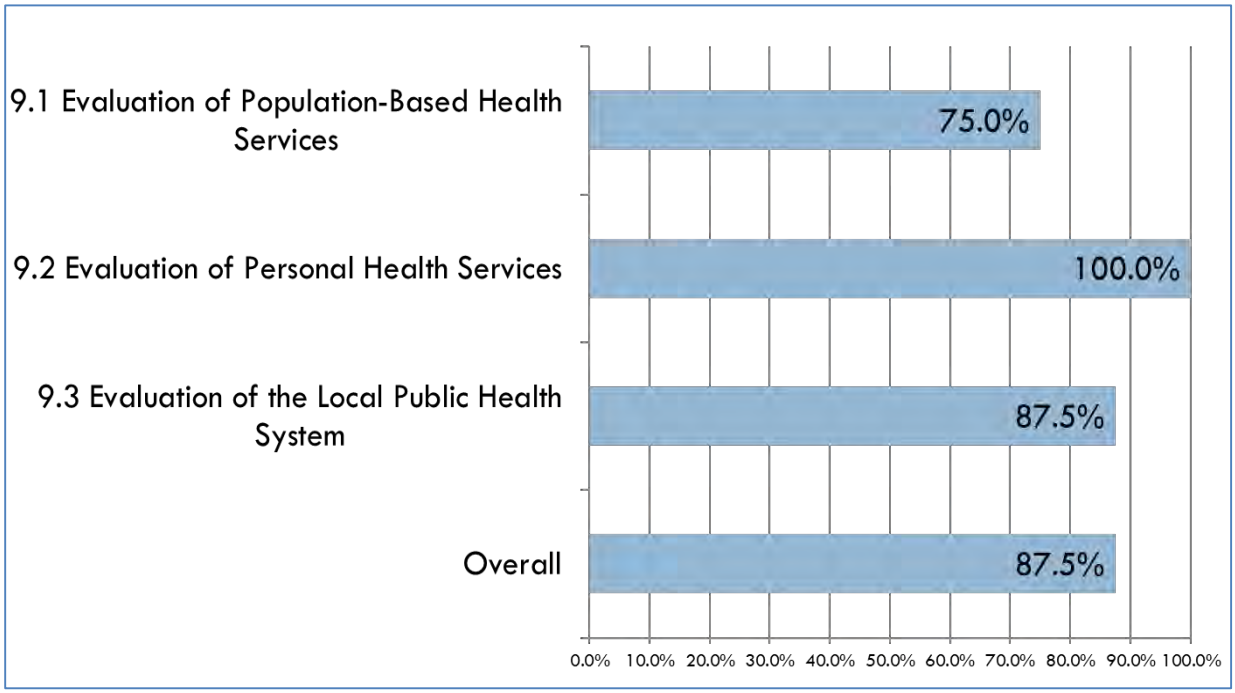
- Increase public health training opportunities and outreach to civic groups and residents
- Increase public health leadership opportunities and conduct succession planning
- Educate partners who do not recognize their role as part of the public health system on their contributions to the local public health system

Long-Term Improvement Opportunities

- Conduct public health workforce planning across the LPHS, especially for emergency response public health sector
- Expand existing training opportunities to include additional public health professionals and community residents

FIGURE 15

Essential Service 9: Evaluate Effectiveness, Accessibility and Quality of Personal and Population-Based Health Services



The overall performance score for Essential Service 9: Evaluate Effectiveness, Accessibility and Quality of Personal and Population-Based Health Services was 87.5%, indicating optimal activity.

Strengths

- Funders require some accountability in health outcomes
- Most organizations conduct programs and services evaluations to measure effectiveness and accessibility

Weaknesses

- Lack of consistent evaluation of the availability and accessibility of services for special populations, including seniors, adults with disabilities and young adults transitioning from child health services to adult health services
- No inclusive data sharing and communication between LPHS partners
- Barriers exist that prevent implementation of improvements identified through evaluation
- Lack of data integration across the various data systems

Short-Term Improvement Opportunities

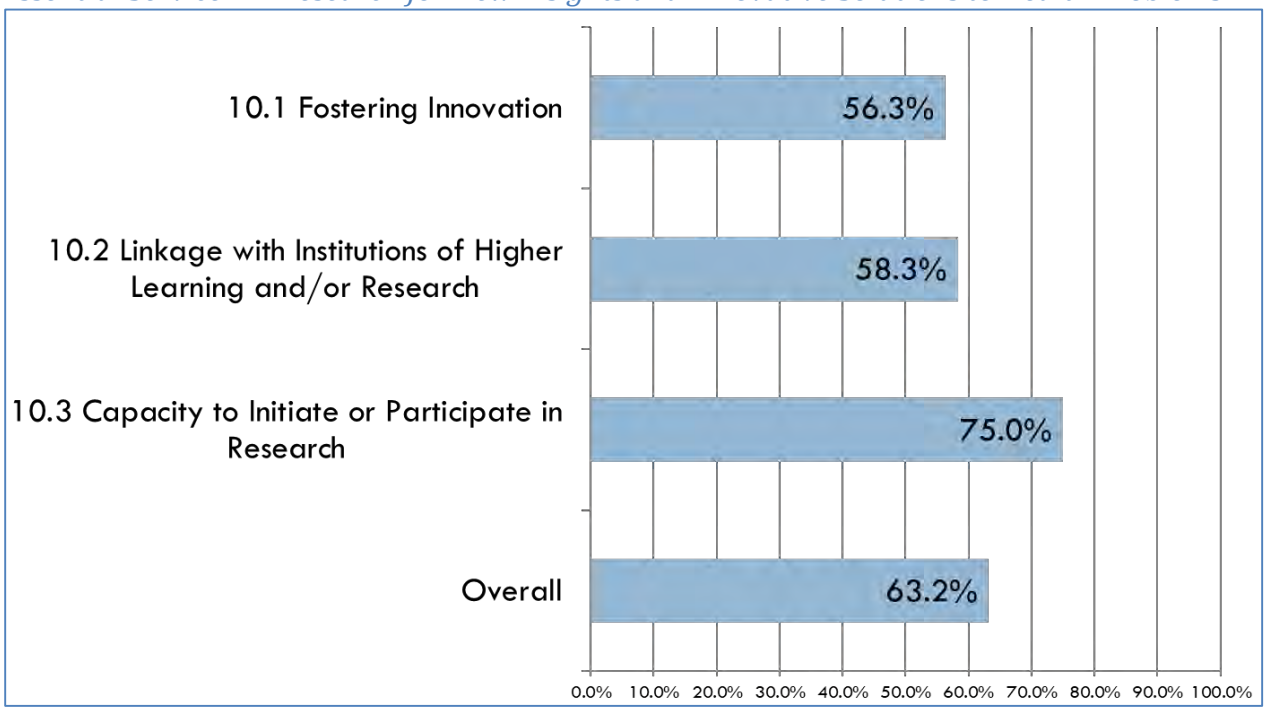
- Create roundtables for assessing and closing gaps in personal and population-based services for select sub-populations (e.g., pediatric mental health)
- Engage a wider variety of organizations in assessment and evaluation activities

Long-Term Improvement Opportunities

- Gather data from organizations and consolidate data to create an overall assessment of needs and resources
- Implement additional roundtables on unaddressed and emerging issues

FIGURE 16

Essential Service 10: Research for New Insights and Innovative Solutions to Health Problems



The overall performance score for Essential Service 10: Research for New Insights and Innovative Solutions to Health Problems was 63.2%, indicating significant activity.

Strengths

- Significant utilization of Community-Based Participatory Research models uniting community, university and public health partners
- Implementation of research training targeted at public health system partners, including community residents and organizations

Weaknesses

- Disconnect between interests the community, researchers and funders
- Lack of an inventory of research projects with their geographic location, resulting in oversaturation of research in some neighborhoods
- Lack of community awareness and empowerment to initiate research request

Short-Term Improvement Opportunities

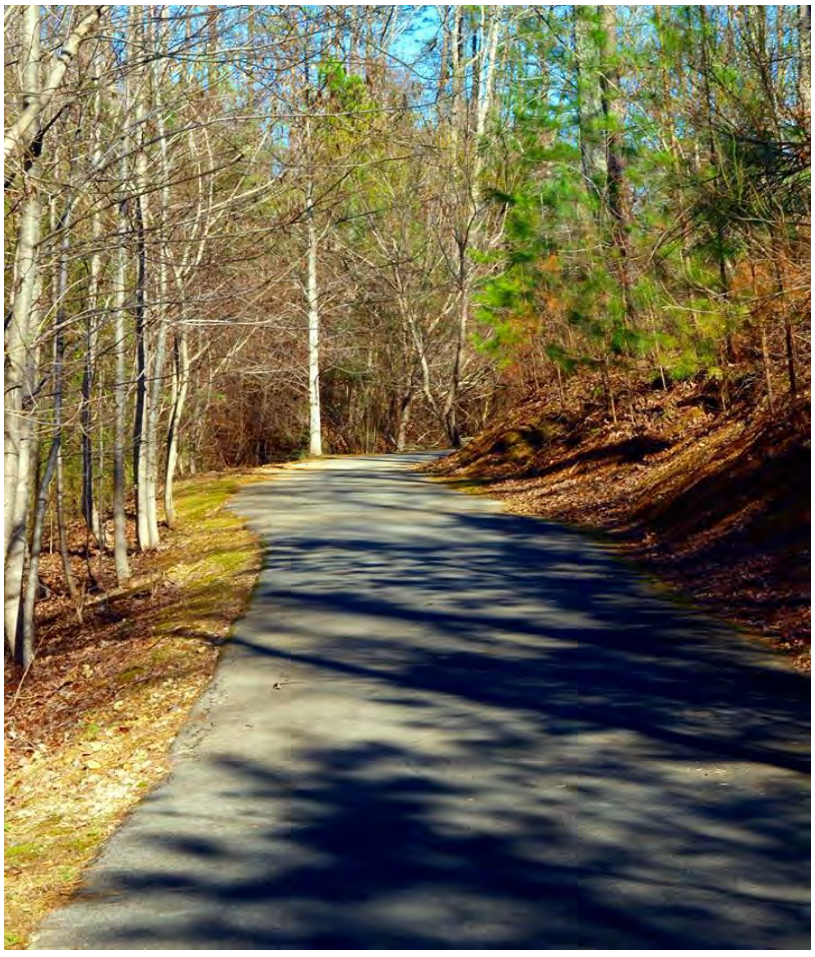
- Formation of a Local Public Health System Research Strategy group
- Continued to pursuance of individual and collaborative grant opportunities

Long-Term Improvement Opportunities

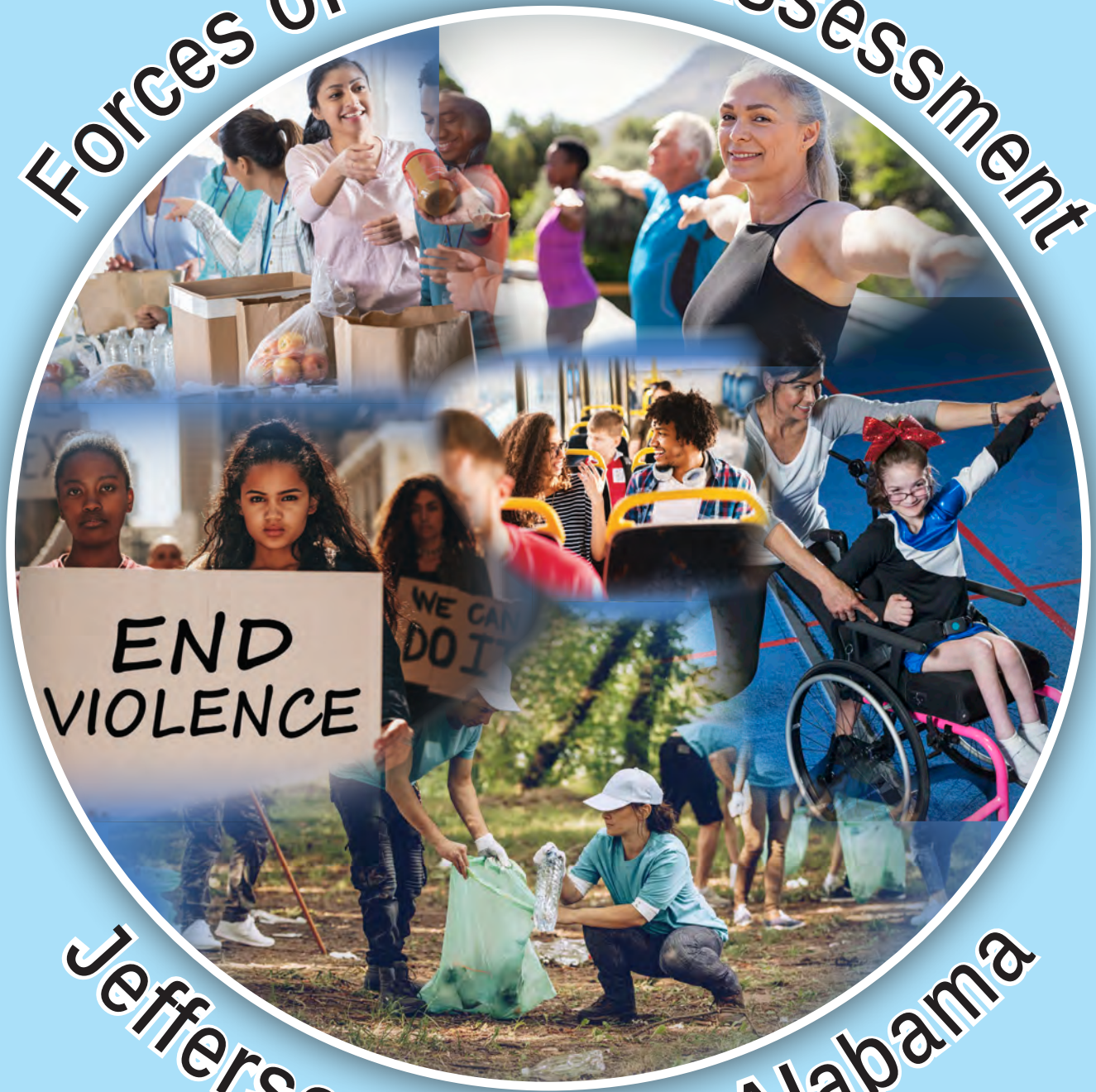
- Local Public Health System Research Strategy group to establish a research clearinghouse and guidelines for working with communities
- Evaluation of the effectiveness of existing research
- Advocacy for an Alabama hospital discharge database and identification of databases with census tract level data

Local Public Health System Assessment Conclusion

The Local Public Health System Assessment (LPHSA) provides local public health system (LPHS) partners with a snapshot of the LPHS's collective performance. The scores within the LPHSA are based upon input from diverse LPHS partners with unique experiences and perspectives and therefore are somewhat objective. Due to the limitations noted, the results and recommendations associated with the assessment report should be used for quality improvement purposes.



Forces of Change Assessment



Jefferson County, Alabama

ASSESSMENT, VISIONING, AND PLANNING
COMMUNITY MATTERS
FOR A HEALTHY JEFFERSON COUNTY

October 2019

Overview of the Forces of Change Assessment

The Forces of Change Assessment (FOCA identifies trends, factors and events that are occurring or expected to occur over the following five years which impact or influence the health and quality of life of people who live, learn, work, play or worship in Jefferson County or that impact the county's local public health system. The following questions were asked during the FOCA:

- *What is occurring or might occur that affects the health of the community or its local public health system?*
- *What specific threats or opportunities are generated by these occurrences?*

Jefferson County's local public health stakeholders participated in a series of brainstorming sessions to identify:

Trends: Patterns over time, such as migration in and out of a community or growing disillusionment with government;

Factors: Discrete elements such as a community's large ethnic population, an urban setting or its proximity to a major waterway, and

Events: One-time occurrences such as a hospital closure, natural disaster or the passage of new legislation.

Categories of trends, factors and events impacting population health and the local public health system included:

- Social
- Economic
- Political
- Technological
- Environmental
- Scientific
- Legal
- Ethical.

Methodology

To conduct the FOCA, a sub-committee of stakeholders from the local public health system were identified. The sub-committee guided the selection of structure and participants for conducting the assessment. Six FOCA sessions were conducted at various locations within Jefferson County, Alabama using a formal brainstorming methodology. FOCA participants represented the diversity of Jefferson County's population and included community members, clergy, mental health and health care professionals, educators and representatives from governmental, non-profit and other agencies serving Jefferson County residents. Several of the FOCA sessions targeted specific key informants or select Jefferson County sub-populations. Among these sessions, were those conducted with clergy, health care professionals, and homeless persons? The remaining FOCA sessions included a variety of local community stakeholders, including community members. The dates and locations for the six FOCA sessions were:

- October 17, 2018 (St. Vincent's Foundation, Forge Office)
- October 26, 2018 (St. Vincent's Health System, Bruno Center)
- November 1, 2018 (Birmingham Central Public Library)
- November 2, 2018 (Greater Shiloh Missionary Baptist Church)
- November 7, 2018 (Western Health Center)
- December 7, 2018 (Children's Aid Society).

Forces of change identified during these assessment sessions were categorized by participants as strengths, weaknesses, opportunities for improvement and/or threats (SWOT). It should be noted that a force of change could be concurrently identified as a strength and weakness or opportunity and threat.

Participant's responses were coded for content and categorized in themes using qualitative analysis content coding to assist in the identification and prioritization of potential strategic issues from the FOCA and the other MAPP assessments for Jefferson County, Alabama.

Results

The following section outlines the top five reoccurring forces of change identified through the FOCA data assessment process and summarizes the concerns arising from each.

Transportation: Much of Jefferson County is suffering from an inadequate and inefficient public transit system. FOCA feedback suggested many believe the current public transportation system is unreliable. The existing transportation system was noted to frequently fail to provide on-time stops, to be constricted by limited hours of operation, and to include bus routes that do not adequately service and provide access to key city and county destinations such as grocery stores, shopping malls, job sites, churches and local events.

Mental Health: There is a lack of equitable access to mental health care, and available education regarding available community-based mental health services and how to access these services is limited. These issues are viewed as barriers to achieving and maintaining good mental health, especially for vulnerable populations, including, youth, the formerly incarcerated and the homeless.

Drug/Opioid Crisis: There is a high prevalence of opioid and other drug dependency in Jefferson County which has resulted in increasing rates of drug overdoses, deaths and dependency. These problems were assessed by FOCA participants as exacerbated for teenagers and the homeless sub-population. Drug abuse was often believed to be associated with poor mental health and increased rates of crime in Jefferson County, Alabama.

Access to Services: FOCA participants indicated a lack of access to quality health care, health care providers and affordable medications for the uninsured, low-income, elderly and disabled sub-populations. Accordingly, these sub-populations were deemed to be at a disadvantage for receiving services such as mental health care, substance abuse treatment and sub-specialty medical care.

Environmental Concerns: FOCA participants noted poor indoor and outdoor air quality, neighborhood flooding, failure to preserve the ecosystem and its wildlife, and poor community sanitation as environmental concerns. These concerns were also indicated as potentially related to health issues.

In addition to these leading concerns, additional concerns identified through the FOCA as impacting the community included:

- Lack of trust in governmental and political leadership;
- Increased rates of crime and violence;
- Lack of affordable, accessible and safe housing for the homeless and those living in poverty;
- Presence of blight, including a growing number of overgrown properties, dilapidated houses and buildings, leading to unsafe neighborhood conditions;
- Limited access to healthy and affordable foods for some sub-populations, including the elderly, disabled and those with low incomes;
- Changes in neighborhood demographics resulting from migration in and out of communities;
- Need for improvements to Infrastructure such as repair and maintenance of interstates, streets, sidewalks, bridges and some buildings. It was also noted that some existing infrastructure is not designed to accommodate individuals with disabilities;
- Biases based on age, sex, race, ethnicity, country of origin, lawful status within the United States and ability limit access to services and opportunities for quality of life for many, and
- A lack of job opportunities and job skill training for youth, senior citizens and ex-offenders.

Tables 1 through 5 display the threats and opportunities created from the top five concerns emerging from the Forces of Change Assessment.

Threats and Opportunities

Table 1:

Transportation: Lack of an Adequate Transit System	
Threat	**Opportunities Created**
• The existing public transportation system limits access to jobs, housing, education, health-related and social services and affordable, healthy food for non-drivers and those without personal transportation	• Increasing BJCTA's hours of operation and adding bus routes/stops serving more areas outside of Birmingham to improve accessibility to jobs, housing, education, health-related and social services and affordable, healthy food
• Inadequate funding of the Birmingham-Jefferson County Transit Authority (BJCTA) is reducing the effectiveness of public transit	• Development of a more diverse system for public transportation beyond bus transportation to strengthen access to needed services within the county

Table 2:

Mental Health: Lack of Equitable Access to Mental Health Care	
Threat	**Opportunities Created**
• Perceived risk of service reduction for county residents if the University Health Care Plan is implemented • Misdiagnosis and improper medication prescribing lead to poorer mental health, self-medicating and increased risky behaviors • Multiple organizations compete for limited funding for the provision of mental health services • Increased crime related to poor mental health and substance abuse for young adults transitioning or aging out of the Department of Human Resources' care • Lack of equitable geographic distribution of mental health services within the county	• Development and implementation of integrated physical and mental health services for disadvantaged and vulnerable populations, regardless of the ability to pay for such services • Provision of mental health care navigators and advocates • Opportunity to increase the number of mental health professionals and programs for training health care providers in mental health-related care • Increased collaboration with churches and religious organizations in identifying and linking individuals impacted by mental health issues to treatment and support • Employment strategies for the recruitment and retention of mental healthcare providers in rural areas • Universal screening of students at all stages of the educational pipeline to identify the need of counseling or mental health treatment services • Increased dialogue at the local, regional and national levels to improve mental health and support services for newly emancipated youth from the Department of Human Resources' care • Non-medication based treatment options for abuse and dependency • Telemedicine

Table 3:

Drug/Opioid Crisis:	
Threat	**Opportunities Created**
• Increase in overdose deaths and substance abuse dependency	• Alternative treatment and drug diversion programs for drug abusers rather than incarceration • Ongoing education for health care providers on opioid prescription management • Non-medication based treatment options for individuals with substance abuse and dependency

Table 4:

Access to Services: Lack of Access to Quality Healthcare and Providers	
Threat	**Opportunities Created**
• Lack of access to quality health care services and providers	• Development and implementation of integrated physical and mental health services for disadvantaged and vulnerable populations, regardless of the ability to pay for such services • Provision of healthcare navigators and advocates • Creation of employment strategies for the recruitment and retention of physicians, allied health professionals, nurse practitioners and community health workers to serve rural areas • Telemedicine

Table 5:

Environmental Concerns: Pollution and Environmental Degradation	
Threat	**Opportunities Created**
• Air and water pollution harm the natural environment and may negatively impact health • The county's water system may become compromised and unsafe, creating a public health crisis	• Increased funding for storm water management • Comprehensive smoke-free protections, including limitations on vaping and the sale of vaping products • Increased penalties for violation of regulations related to illegal dumping, illegal burning, and air and water pollution • Stronger laws, regulations and enforcement designed to protect the environment by city and county municipalities

Strengths, Weaknesses, Opportunities and Threats by Session

Following participant identification of forces of change, a Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis was conducted.

Table 6:

SWOT Analysis Results from Session 1: October 17, 2018 (St. Vincent's Foundation, Forge Office)				
Force (Trends/Events/Factors)	**Threat Posed**	**Opportunities Created**	**Strength**	**Weakness**
Opioid Crisis	Threatened family safety and security; Increased rate of suicide; More children placed in foster care Increased prevalence of Neonatal Abstinence Syndrome and its long-term impacts	Utilization of alternative pain treatments and non-narcotic pain treatment; Enhanced opioid prescriber education and accountability	No	Yes
Unreliable and Inaccessible Transportation	Limited access to employment, healthy food, health care and social services, as well as limitations in performing civic duties	Creation and/or expansion of transportation options such as Uber Health, Kid One Transport, and Uber services for the disabled	No	Yes
Health Care Coverage	Individuals without health insurance or with inadequate health insurance have limited access to health services medications, and medical supplies Alabama's decision not to participate in Medicaid expansion limits health care access	Increase number and geographic distribution of Federally Qualified Health Care Centers (FQHCs) that can provide care for vulnerable populations and offer supportive services such as transportation and language services; Expand Medicaid	No	Yes

SWOT Analysis Results from Session 1 (Continued)				
Force (Trends/Events/Factors)	**Threat Posed**	**Opportunities Created**	**Strength**	**Weakness**
Equitable Access to Mental Health Care	Unmet mental health needs may lead to issues including poor academic performance, crime and substance abuse Suicide rates in Jefferson County have increased Mental health needs remain undiagnosed and treated secondary to lack of universal screening Lack of integration of behavioral and physical health care Limited mental health care access, especially in rural areas of the county coupled with an inadequate public transit system create delays in care access Incorrect diagnosis in mental health delays effective treatment	Early detection, referral and treatment of mental/behavioral issues Increased access to "text to talk" applications and mental health programs Provision of mental health services in rural areas Expanded training for primary care providers on diagnosis and treatment of mental health diagnoses Expanded mental health screening in schools Increased understanding of the impacts of poor mental health and of referral and treatment options	No	Yes

SWOT Analysis Results from Session 1 (Continued)				
Force (Trends/Events/Factors)	**Threat Posed**	**Opportunities Created**	**Strength**	**Weakness**
Gentrification	Lower-cost housing and retail space is limited, especially in downtown Birmingham, creating displacement of families and business closures	Blight in downtown Birmingham is reduced by new development New businesses moving into downtown Birmingham are creating more vibrancy and economic opportunities	Yes	Yes
Medicaid Expansion and Medicare Coverage Gap	Lack of Medicaid expansion in Alabama limits access to care The "doughnut hole" in Medicare coverage results in a coverage gap	Continue to advocate for Medicaid expansion Implement solutions to close the “doughnut hole”	Yes	Yes
University Healthcare Authority and Rural Hospital Closures	The proposed transition of Cooper Green Mercy Health Services to a university health care model and closure of rural area hospitals may or has reduced access to care and eliminated jobs	UAB is a capable health care system and is expected to create long-term sustainability for the services previously provided through Cooper Green Mercy Health Services Telemedicine services bridging access gaps	No	Yes

SWOT Analysis Results from Session 1 (Continued)				
Force (Trends/Events/Factors)	**Threat Posed**	**Opportunities Created**	**Strength**	**Weakness**
Education	Lack of equitable educational opportunities and systems create life-long disparities related to financial and social stability	Improved quality of life though equitable access to educational resources	Yes	Yes
Music	Song lyrics may influence youth to commit violent acts, misuse drugs and alcohol, or complete suicide	Promote healthy self-image and behaviors through music	Yes	Yes
Lack of Resources for Adolescents	Lack of resources for adolescents can lead to isolation, poor decision-making and behaviors	Positive engagement of adolescents in schools and communities, improved academic performance and positive behaviors through advocacy for program and service funding	No	Yes
Obesity	Short and long-term impacts on physical and mental health	Implement policy, system and environmental changes to reduce overweight and obesity, including improving healthy food access and physical activity	No	Yes

SWOT Analysis Results from Session 1 (Continued)

Force (Trends/Events/Factors)	Threat Posed	Opportunities Created	Strength	Weakness
Need for Telemedicine Expansion	Telemedicine may lead to misdiagnosis and medical errors	Telemedicine can expand care access for those in rural areas where there are provider shortages or in situations where transportation limits access to traditional care The technology needed for telemedicine is not consistently available	Yes	Yes
Community Food Banks and Pantries	Food banks and pantries, while essential in addressing hunger, have experienced issues with sustainability and geographic placement may be a barrier for those in most need	Mobile food bank markets and food pantries in schools, religious organizations and health care facilities improve food access Increased coordination and collaboration among emergency food providers to maximize resources	Yes	Yes
Homelessness	Homeless individuals experience greater barriers to personal stability, health care and social services	In reducing homelessness, self-sufficiency increases, and individuals are enabled to reach his or her human potential	No	Yes

Table 7:

SWOT Analysis Results from Session 2: October 26, 2018 (St. Vincent's Bruno Conference Center)				
Force (Trends/Events/Factors)	**Threat Posed**	**Opportunities Created**	**Strength**	**Weakness**
Growing International Population	Lack of resources and programs for meeting the unique needs of the international sub-population	A more diverse community with equitable access to opportunities	Yes	Yes
Positive Male Mentorship	Young boys and young men often lack strong, positive role models and leadership	Increased self-esteem and problem solving through decreased isolation among young boys and young men	No	Yes
Gentrification/Birmingham's Population Shift	Gentrification creates personal and business displacement and disproportionately impacts those with lower incomes	Increased property values and investment in some areas	No	Yes
Isolation	Isolation can lead to unhealthy coping mechanisms and poor health outcomes including substance abuse and suicide completion	No opportunities Identified	No	YES
Access to Healthy Food for Youth	Many children do not have access to healthy foods outside of school hours	Improved health and learning; continued expansion of community-based meal programs		Yes
Suicide	As youth suicide is sensationalized, those at risk for self-harm are negatively impacted	Positive reinforcement on the preventability of suicide and management of mental illness	Yes	No

SWOT Analysis Results from Session 2 (Continued)				
Force (Trends/Events/Factors)	**Threat Posed**	**Opportunities Created**	**Strength**	**Weakness**
Mental Health Stigma	Mental health stigma is a barrier for the recognition, referral to care and treatment of those with poor mental health, and even when mental health is an identified concern, many laypersons do not have the knowledge to promote mental health assessment and referral to care	Create parity between mental and physical health to reduce the barrier of stigma Promote Mental Health First Aid training broadly within the community	No	Yes
Issues Experienced by Children in the Foster Care System	Foster children often struggle with self-esteem, family integration and transitioning to life outside of the foster care system	Increase mentorship programs for children in and transitioning out of the foster care system	No	Yes
Elder Abuse (exploitation, physical, mental and emotional maltreatment)	Desertion of elders, poor living standards and lack of care reduce quality of life and may lead to preventable illness and death	Eliminating elder abuse improves quality of life and the potential impact of seniors on the community	No	Yes
Youth Homelessness	Homelessness reduces safety and quality of life	In decreasing youth homeless through addressing the root causes of homelessness, human capital is maximized	No	Yes

SWOT Analysis Results from Session 2 (Continued)				
Force (Trends/Events/Factors)	**Threat Posed**	**Opportunities Created**	**Strength**	**Weakness**
Increase in Sexually Transmitted Infections (STIs)	STIs caused morbidity and may lead to infertility Stigma related to STIs is a barrier to diagnosis and treatment	Reducing the STI rate reduces morbidity and infertility Stigma can be reduced through community outreach and education	No	Yes
Birmingham's Entertainment District	The growth of Birmingham's Entertainment District has increased traffic in the area leading to increased safety concerns	Increased opportunities for entertainment have increased the city's vibrancy and increased tax revenue	Yes	No
Reactionary Governmental Leadership	The perceived reactionary mindset of governmental leaders restricts proactive decision making and leads to a crisis mentality	In government using a proactive approach, systemic issues and root causes can be addressed before a crisis occurs	Yes	Yes
Perceived Shift in Cultural/Societal Perspective	The perceived cultural perspective of self-centricity and disregard for others has resulted in fear, anger and avoidance of conflict resolution	Increase conflict resolution training in multiple settings	No	Yes
Opioid Crisis	Loss of human potential secondary to opioid-addicted persons and overdose deaths Children placed in foster care or raised by non-parents due to addiction	Implementation of evidence-based drug use prevention programming and expanded access to addiction treatment services	No	Yes

SWOT Analysis Results from Session 2 (Continued)				
Force (Trends/Events/Factors)	**Threat Posed**	**Opportunities Created**	**Strength**	**Weakness**
Lack of Child/Youth Mentoring	Lack of effective mentoring of children and youth can result in poor decision making and lessened academic performance	Positive youth mentorship programming within the community and religious organizations	No	Yes
Prescription Drug Coverage	Many people cannot afford to purchase medications or pay premiums for insurance offering affordable medication coverage	Communicate options for affordable prescription coverage, including patient assistance programs	No	Yes
Exploitation of the Poor	Local and state ordinances and laws enable exploitation of the poor through predatory lending and excessive fast food establishments in impoverished communities	Establish restrictions on predatory lending agencies and fast food establishments in impoverished communities	No	Yes
Lack of Unity among Religious Organizations	Lack of coordination by religious organizations in addressing community needs wastes limited resources	Increased coordination among religious organizations to address community needs efficiently and effectively	No	Yes
Failing Education Systems	Failing education systems are not consistently preparing youth for success	Create parity in school resources among the various school systems	No	Yes
Lack of Medicaid Expansion	Lack of Medicaid expansion in Alabama limits access to care	Advocate for Medicaid expansion for uninsured adults	No	Yes

SWOT Analysis Results from Session 2 (Continued)

Force (Trends/Events/Factors)	Threat Posed	Opportunities Created	Strength	Weakness
Transportation	The public transit system limits access to jobs and assets in the community	Develop a more diverse transit system	No	Yes
Transportation Funding	Current funding for the Birmingham-Jefferson County Transit System (BJCTA) does not allow adequate routes and cycle times to meet the needs of all residents	Restructure BJCTA funding through the various municipalities		
Police Profiling	Perceived profiling by the police based on community demographics is believed to decrease trust in law enforcement	Increase community trust in law enforcement through training on recognizing and overcoming biases and creating positive engagement with community members	No	Yes

Table 8:

SWOT Analysis Results from Session 3: November 1, 2018 (Birmingham Central Public Library)				
Force (Trends/Events/Factors)	**Threat Posed**	**Opportunities Created**	**Strength**	**Weakness**
Aging of the Population	With increasing number of senior residents, additional services are need to keep seniors in healthy and active	Support seniors with workforce development training, affordable housing and walkable communities	Yes	Yes
Litter and Illegal Dumping	Littering and illegal dumping on roadsides and in communities negatively impacts the health and safety of residents and degrades the environment	Expand trash pick-up in unincorporated areas of the county	No	Yes
Road Construction	Increased response time for first responders, road rage and accidents Traffic detours related to major roadway construction degrades smaller road conditions	Improving road infrastructure will support job growth and is expected to ease traffic congestion	Yes	Yes
Limited Job Availability (paying a living wage and supportive benefits)	Lack of full-time jobs providing a living wage and supportive benefits reduces quality of life for some residents	Increase workforce development programs, including trade and technical job training	No	Yes

SWOT Analysis Results from Session 3 (Continued)

Force (Trends/Events/Factors)	Threat Posed	Opportunities Created	Strength	Weakness
Lack of Property Maintenance	Poor property maintenance reduces property values and can create safety concerns	Increase enforcement of municipal and neighborhood property maintenance ordinances Expand legal opportunities for purchase of abandoned lots	No	Yes
Limited Job Availability (paying a living wage and supportive benefits)	Lack of full-time jobs providing a living wage and supportive benefits reduces quality of life for some residents	Increase workforce development programs, including trade and technical job training	No	Yes
Crime	Increase in crime rates decreases perception of safety and opportunity	Reducing crime through providing more equitable opportunities for all residents can improve safety and reduce fear and isolation, making communities more sustainable and vibrant	No	Yes

SWOT Analysis Results from Session 3 (Continued)

Force (Trends/Events/Factors)	Threat Posed	Opportunities Created	Strength	Weakness
Water Quality and Flooding	Poor quality of rivers and streams and lack of consistent storm water management create health and safety hazards and flooding	Improved river and stream quality through water protection education, litter and dumping ordinance enforcement and increasing municipalities participating in the Storm Water Management Authority (SWMA)	No	Yes
Poor Political Process Engagement	Low voter turnout for local, state and national elections limits the government's ability to respond to its constituency	Increase voter registration and participation in elections by addressing the barriers to these actions	No	Yes
Competition for Limited Resources	Competition among the various municipalities in Jefferson County for residents, businesses and resources results in inequitable distribution of assets	Coordination and collaboration among municipalities can result in more equitable access to assets for more residents	No	Yes
2021 World Games	The influx of visitors related to the 2021 World Games will increase the need for additional security and safety measures	The 2021 World Games present short- and long-term economic opportunities Creates a time deadline for needed infrastructure improvements	Yes	Yes

SWOT Analysis Results from Session 3 (Continued)

Force (Trends/Events/Factors)	Threat Posed	Opportunities Created	Strength	Weakness
Climate Change	Changes in the climate provide health challenges for vulnerable populations and a need for strong plans to prevent and mitigate the impacts of natural disasters is changing	Community engagement in the county's emergency preparedness programs to reduce harm created by climate changes	No	Yes
Amazon Distribution Center	Not all residents have the educational requirements to compete for Amazon Distribution Center jobs	Employment providing a livable wage, supportive benefits and encouraging higher education	Yes	Yes
Closure or Lay-offs at Walter Coke, Citco and US Steel	Lay-offs and plant closures decrease financial stability and can increase blight	Reduction in air pollution created by some industries Opportunity to recruit and attract industries with less environmental impact	Yes	Yes
Industrial and Transportation Sourced Air Pollution	Pollutants associated with industry and transportation can negatively impact health	Continued compliance with Environmental Protection Agency (EPA) standards for air quality and application of technology to reduce source pollutants below allowable levels Vegetation to mitigate microclimates	No	Yes

SWOT Analysis Results from Session 3 (Continued)

Force (Trends/Events/Factors)	Threat Posed	Opportunities Created	Strength	Weakness
Vaping	The increase of vaping within the population is increasing the number of people affected by nicotine exposure, and the health impacts of primary and secondary exposure to vaping is only emerging	Advance existing smoke-free ordinances to include vaping and the sale of vape products Scientifically determine the impact of exposure to vaping products	No	Yes
Marketing of Addictive Substances	The increasingly effective marketing of addictive substances to both youth and adults is promoting use and addiction to these substances	Decrease initiation of addictive substances through robust education and increasing restrictions on manufacturing, distributing and selling products containing addictive substances	No	Yes
Food Deserts	Food deserts persist in areas of Jefferson County limiting access to healthy foods	Expand farmer's markets and mobile markets in communities with limited access to healthy foods	No	Yes

Table 9:

SWOT Analysis Results Session 4: November 2, 2018 (Greater Shiloh Missionary Baptist Church)				
Force (Trends/Events/Factors)	**Threat Posed**	**Opportunities Created**	**Strength**	**Weakness**
Mental Health Funding	Limited funding for mental health services remains a barrier to care access	Advocate for public and private funding for mental health care	No	Yes
Technology	Increasingly, the transition to use of technology for activities such as applying for jobs and electronic payments makes these activities challenging for people who are not technology savvy	Continue and expand community-based technology training	No	Yes
Education	Educational curricula in public schools do not prepare students for life skills such as budgeting and parenting creating downstream issues	Imbed life skills training in public education	No	Yes
Alabama Lottery	While an Alabama lottery could increase state revenue, some believe it supports a form of addiction and may lead to poor money management	Funds generated from an Alabama lottery could be used to improve the education system and improve infrastructure	Yes	Yes
Health Care Insurance Selection	Lack of suitable access to case managers and decision support for selection of health insurance has resulted in inadequate coverage	Standardize access to case management for review and selection of health insurance	Yes	Yes

SWOT Analysis Results from Session 4 (Continued)

Force (Trends/Events/Factors)	Threat Posed	Opportunities Created	Strength	Weakness
Child Abuse (physical, mental, emotional, exploration)	The abuse of children can result in poorer mental and physical health, as well as limit the child's self-actualization	Implement screening and intervention for children at risk for child abuse	No	Yes
Transportation	The current public transportation system does not offer the routes and schedules needed by some seniors to effectively access employment, health care and community-based assets	Collaboration between community groups and the Birmingham-Jefferson Transit Authority to optimize transportation access for seniors	No	Yes
Lack of Affordable Housing	Lower stock of affordable housing in areas with access to public transportation and handicap accessibility reduce quality of life	Align public transportation, including paratransit services, with areas offering more affordable housing options	No	Yes
Increase in Sexually Transmitted Infections (STIs)	Increased rates of STIs are negatively impacting the health of the county	Offer comprehensive STI prevention services and education Expand access to STI testing and treatment	Yes	No
Lack of Services for the Homeless Population	Homeless persons experience challenges with transportation, health care, education and other supportive services that increase quality of life	Coordinate funding and services for the homeless to maximize the efficiency and effectiveness of available resources	No	Yes

SWOT Analysis Results from Session 4 (Continued)

Force (Trends/Events/Factors)	Threat Posed	Opportunities Created	Strength	Weakness
Lack of Awareness of Activities and Services to Support Seniors	Seniors may not be accessing available services and activities due to inadequate communication of these opportunities	Increase awareness by seniors of available services and activities using a variety of communication channels	No	Yes
Increasing rate of Alzheimer's Disease	The increase in the number of Jefferson County residents living with Alzheimer's Disease creates increasing need for supportive care and services	Plan health and social services for the increasing percentage of Jefferson County residents impacted by Alzheimer's Disease	No	Yes
Construction	Construction projects, especially in Birmingham's downtown and the UAB campus have disrupted traffic flow	Construction, overall, is seen as improving the vitality of the area	Yes	Yes
Gentrification/Population Shift	Gentrification creates personal and business displacement and disproportionately impacts those with lower incomes	Increased property values and investment in some areas	No	Yes
Lack of Service Access in Rural Areas	Many health and social services are centralized in Birmingham, and combined with limited transportation options, become a barrier to care access for some residents of rural areas in Jefferson County	Encourage equitable geographic distribution of services Utilize telehealth and technology-supported service access	No	Yes

SWOT Analysis Results from Session 4 (Continued)				
Force (Trends/Events/Factors)	**Threat Posed**	**Opportunities Created**	**Strength**	**Weakness**
Lack of Transitional Care and Services for Children with Disabilities	Lack of transitional care and services for physically challenged young adults results in service interruption and lower quality of life	Increase funding and programming for transitional care for young adults with disabilities	No	Yes

Table 10:

SWOT Analysis Results from Session 5: November 7, 2018 (Western Health Center)				
Force (Trends/Events/Factors)	**Threat Posed**	**Opportunities Created**	**Strength**	**Weakness**
Safe and Affordable Housing Deficit (including residential and transitional)	Limited safe and affordable residential housing may lead to trade-offs between basic necessities resulting in negative health outcomes Lack of long-term transitional housing may contribute to homelessness, violence, and exacerbated mental health conditions	Advocacy for increased funding of housing assistance programs Identify subsidized residential and transitional housing for individuals that are in need of support	No	Yes

SWOT Analysis Results from Session 5 (Continued)

Force (Trends/Events/Factors)	Threat Posed	Opportunities Created	Strength	Weakness
Limited Access to Mental Health Services	Limited access to mental health services remains a barrier to care for low-income and vulnerable populations	Increased mental health providers and resources based on community trends and diagnoses Telemedicine to bridge the gap in mental health care access	No	Yes
Inadequate Customer Service from Public Servants	Government employees are perceived as negative, and discourteous; which may discourage those in need of government assistance from receiving services that directly impact health and quality of life	Advocate for all public servants to receive training that reinforces positive language, active listening and effective communication skills	No	Yes
Social Isolation among the Senior Sub-population	Social services and resources for the elderly population are limited or based on strict requirements which may lead to social isolation Limited resources may hinder access to health care services and poor quality of life among the elderly population	Coordinate with social services and community organizations to decrease social isolation Provide a comprehensive care plan that addresses the long-term care needs of the entire elderly population	No	Yes

SWOT Analysis Results from Session 5 (Continued)

Force (Trends/Events/Factors)	Threat Posed	Opportunities Created	Strength	Weakness
Barriers to Sharing Health Data	Many organizations have health data that can be useful in improving health outcomes; however, access is limited due to policies that protect confidentiality and privacy concerns	Collaborate to develop formal agreements that define the scope of use for all datasets	No	Yes
Lack of commitment to diversity, equity and inclusion	Lack of equal opportunities	Reduce injustices and provide equal opportunities for well-being and success	No	Yes
Homelessness of young adults following release from Department of Human Resources' care	Loss of human potential	Successful transition of youth from Department of Human Resources care into stable housing, employment and needed health care, including mental health services	No	Yes
Transportation	The public transit system limits access to jobs and assets in the community	Develop a more diverse transit system	No	Yes

SWOT Analysis Results from Session 5 (Continued)

Forces (Trends/Events/Factors)	Threat Posed	Opportunities Created	Strength	Weakness
Lack of Healthcare Expansion	Alabama's decision not to participate in Medicaid expansion limits health care access for a significant number of adults which can lead to negative health implications	Increase number and improve geographic distribution of Federally Qualified Health Care Centers (FQHCs) that can provide care for vulnerable populations and offer supportive services such as transportation and language services Expand Medicaid	No	Yes
Air Pollution Exposure (reduced EPA oversite nationally)	Long-Term Air Pollution exposure can lead to serious and sometimes permanent health implications which can also negatively impact quality of life	Continued compliance with Environmental Protection Agency (EPA) standards for air quality and application of technology to reduce source pollutants below allowable levels Vegetation to mitigate microclimates	No	Yes
Economic Insecurity (limited job opportunities)	Lack of full-time jobs providing a living wage and supportive benefits reduces quality of life for some and may lead to increased crime and substance abuse within Jefferson County	Increase workforce development programs, including trade and technical job training Expand the job market in Jefferson County	No	Yes

SWOT Analysis Results from Session 5 (Continued)

Forces (Trends/Events/Factors)	Threat Posed	Opportunities Created	Strength	Weakness
Aging Population	Middle-Aged adults are transitioning into caregiving for elderly parents due to increasing cognitive, behavioral and health problems in the elderly population	Increase awareness to caregivers of available services and activities using a variety of communication channels Collaborate with social services, government and other community organizations to establish long-term care plans	Yes	Yes
Education	Lack of equitable educational opportunities and funding create life-long disparities related to financial and social stability	Improved quality of life through equitable access to financial and educational resources Reduce class sizes and advocate for training that prepare educators to work with culturally diverse students	No	Yes
Income Inequality	Health outcomes for communities are inversely proportionate to the rate of income inequality in the community	Policies to increase equality and ensure access of public goods to all (e.g. library and public school funding, funding for public health services, etc.)	No	Yes

SWOT Analysis Results from Session 5 (Continued)

Forces (Trends/Events/Factors)	Threat Posed	Opportunities Created	Strength	Weakness
Urban Sprawl	Increased motor vehicles on roadways directly impact air pollution and physical activity leading to a number of adverse health outcomes	Advocate for more walkable communities with complete roadways and direct routes to destinations such as grocery stores, pharmacies, libraries, schools and affordable housing	No	Yes
Lack of Mental Health Care	Untreated mental illness can lead to worsening mental health status, increased suicide rates, poor quality of life and other health implications	Evidence-based mental health training in schools and communities Interventions that promote help-seeking behaviors	No	Yes
Healthcare Access (Limited Health Clinics)	Disparities in affordable healthcare access can contribute to poor physical, mental and social health, decreased life expectancy, and poor quality of life	Identify barriers to care including transportation, health insurance status, financial challenges, etc. Educate the population on income-based health care and support services	No	Yes
Gentrification	Gentrification creates displacement and disproportionately impacts those with lower incomes which can lead to shorter lives, limited access to affordable healthy housing and poorer mental health outcomes	Increased property values and investment in some areas Advocate for policies that protect established community residents	No	Yes

SWOT Analysis Results from Session 5 (Continued)

Forces (Trends/Events/Factors)	Threat Posed	Opportunities Created	Strength	Weakness
Increasing Prevalence of Hypertension	Increased prevalence of hypertension can lead to heart disease, decreased quality of life and shorter life expectancy	Establish community education programs that advocate for healthy lifestyle modifications	No	Yes
Lack of Trust in Law Enforcement	Community lack of trust in law enforcement can contribute to increased crime and reduced public safety	Creation of a platform for open communication and dialogue between community leaders, residents and law enforcement Improve community trust with law enforcement through training on recognizing and overcoming biases Create platforms for positive dialogue between law enforcement and residents	No	Yes

SWOT Analysis Results from Session 5 (Continued)

Forces (Trends/Events/Factors)	Threat Posed	Opportunities Created	Strength	Weakness
Healthy Food Access	Grocery stores that provide healthy food access are limited in urban, rural and low-income communities; which can contribute to increased obesity rates and negative health outcomes	Expand farmer's markets and mobile markets in communities with limited access to healthy foods	No	Yes
Expanded opportunity for disease prevention through more recently approved vaccines	The cost of vaccination prevents some individuals from receiving vaccinations and increases the prevalence of vaccine-preventable disease	Increase community-wide vaccination rates and prevent or reduce the severity of vaccine-preventable disease	Yes	No
Dollar Store Expansion in Rural Communities	Increased number of dollar stores in rural communities limit access to whole foods which may lead to food insecurity and decreased revenue for grocery stores	Expand access to Farmer's markets, mobile markets and grocery stores in areas with limited healthy food accessibility	Yes	Yes

Table 11:

SWOT Analysis Results from Session 6: December 6, 2018 (Children's Aid Society)				
Forces (Trends/Events/Factors)	**Threat Posed**	**Opportunities Created**	**Strength**	**Weakness**
Increase in Mental Health Conditions	Mental Health Stigma and inadequate insurance coverage is a barrier to treatment which can lead to increased rates of suicide, depression, substance use disorders and violent crime	Increase knowledge of the impacts of poor mental health, promote help-seeking behaviors and advocate for resources and training such as Mental Health First Aide	No	Yes
Polarization	Polarization continues to increase creating a climate of violence, mistrust and gentrification which negatively impacts physical and mental health	Address key challenges by establishing dialogue and collaboration among community members	No	Yes
Maternal Substance Use Disorders and Overdose	Increase in drug overdose/death during pregnancy leading to negative maternal and neonatal outcomes, cognitive and behavioral challenges in children, and poor quality of life	Promote and advocate for interventions that aim to decrease maternal risk factors during pregnancy	No	Yes
Limited Access to Treatment for Substance Use Disorders	Limited access to treatment and recovery leads to alcohol and substance use disorders; which can impact overall health, life expectancy and quality of life	Integrate primary care, mental health and substance use prevention and intervention programs	No	Yes

SWOT Analysis Results from Session 6 (Continued)

Forces (Trends/Events/Factors)	Threat Posed	Opportunities Created	Strength	Weakness
Political Fragmentation	Political Fragmentation can impact the efficiency of planning sustainable health interventions and contribute to health inequities	Advocate for aligned policy and planning. Strengthen partnerships and collaborations with community members and organizations	No	Yes
Inadequate transportation system	Limited funding to improve transit system which can impact health care access, food accessibility and other community assets	A diverse transit system supports employment, healthcare access and accessible social activities	No	Yes
Homelessness	Homeless individuals experience greater barriers to personal stability, health care and social services which can lead to poor quality of life and disease transmission	Advocate for more funding for programs	No	Yes
Migrant Health Care Access	Migrants have limited access to language and healthcare services which leads to long-term health consequences	Advocate for preventative health care services for all refugees and migrants	No	Yes
Violent Crime	Increased violent crime rates decrease the perception of safety and limit opportunities for those living in communities experiencing violent crime	Provision of equitable opportunities to improve safety and reduce fear and isolation, making communities more sustainable and vibrant	No	Yes

SWOT Analysis Results from Session 6 (Continued)

Forces (Trends/Events/Factors)	Threat Posed	Opportunities Created	Strength	Weakness
Lack of Culturally-competent Services and Acceptance for the LBGTQIA sub-population	Lack of culturally-competent services and acceptance in the LGBTQIA sub-population negatively impacts mental and physical health leading to poor quality of life and negative health outcomes	Advocate for culturally-competent care and services for all individuals	No	Yes
Youth Access to Tobacco Products	Increased access to tobacco among youth leads to nicotine addiction and increased rates of tobacco-related disease	Tobacco retailer education on youth tobacco access laws and penalties Decreased tobacco advertising and promotion Enhancement of smoke-free ordinances and policies promoting a tobacco free lifestyle	No	Yes
Decreased Vaccination Rates	Decreased vaccination rates place unvaccinated and immunocompromised individuals at greater risk for preventable disease	Increase vaccination rates through reducing barriers to vaccination through community education and resources	No	Yes
Limited Healthcare Access for Seniors	Limited healthcare access can lead to negative health outcomes and decreased life-expectancy in the elderly population	Increase awareness of supportive services such as case management and health navigation in the community	No	Yes

SWOT Analysis Results from Session 6 (Continued)

Forces (Trends/Events/Factors)	Threat Posed	Opportunities Created	Strength	Weakness
Health Inequalities Attributed to Classism and Racism	Health Inequalities contribute to disparities among families due to unhealthy lifestyle choices based largely on class and race; which is often a result of limited economic and social resources	Identification and reduction of barriers that prevent healthy behaviors and advocate for resources that close the racial wealth gap	No	Yes
Environmental Injustice	Environmental Injustices negatively impact the ecosystem, healthy food access, transportation, air and water pollution and unsafe homes and increase the incidence and prevalence of physical and mental illness	Engage individuals of different ethnic, racial and socioeconomic backgrounds in decision-making Advocate for clean and healthy environments in all neighborhoods, regardless of socioeconomic background	No	Yes
Poor Air Quality	Long-Term exposure to poor air quality can lead to serious health implications such as respiratory illness, heart disease, stroke, etc.	Continued compliance with Environmental Protection Agency (EPA) standards for air quality and application of technology to reduce source pollutants below allowable levels	No	Yes
Limited Knowledge of Community-Based Health Resources	Limited knowledge of health resources and social services contributes to decreased healthcare access and continuity of care	Educate patients and providers of relevant health care and social services Advocate for patient navigation services	No	Yes

SWOT Analysis Results from Session 6 (Continued)

Forces (Trends/Events/Factors)	Threat Posed	Opportunities Created	Strength	Weakness
Decrease Support for Non-profit Organizations	Increase taxes to support non-profit organization lead to limited access of healthcare and social services that can improve health outcomes and quality of life	Education of non-profit organizations of grant opportunities and other agency funding to provide public services	No	Yes
Increased HIV Infection Rates among Youth and Adolescents	Increased disease burden and risk of HIV transmission	Prevention of future HIV cases through Pre-exposure prophylaxis (PrEP) and education on HIV prevention and treatment		
Profiling by Law Enforcement	Implicit and explicit biases against marginalized populations led to decrease community trust in law enforcement and unnecessary arrests	Revised policies and practices to decrease trauma Training for law enforcement on overcoming biases and creating positive engagement with the community	No	Yes
Decreased Access to Safe Sex Education in Schools	Limited knowledge of safe sex practices leads to increased risks for Sexually Transmitted Infections (STIs)	Implement comprehensive sex education in health education curriculums	No	Decreased Access to Safe Sex Education in Schools
Limited Resources for Vulnerable Youth	Lack of resources and support for vulnerable youth populations to lead positive and productive lives	Advocate for additional funding and youth empowerment programs that support education and increase youth engagement	No	Yes

Forces of Change Assessment Conclusion:

The Forces of Change Assessment (FOCA) engaged community members and members of the local public health system in the identification of forces of change that may directly or indirectly impact Jefferson County, Alabama residents' health and the effectiveness of its local public health system.

Appendix 1: Forces of Change Assessment Sub-committee Members

- David Hooks, UAB School of Public Health
- Brett Isom, Regional Planning Commission of Greater Birmingham
- Brandon Johnson, City of Birmingham Office of P.E.A.C.E. and Policy
- Sonja Lewis, Force of Change Assessment Coordinator, Jefferson County Department of Health
- Bryn Manzella, Jefferson County Department of Health
- Leslie Plaia, Recovery Resource Center
- Susan Sellers, St. Vincent's Foundation, Forge Office

Appendix 2: Forces of Change Assessment Participant Affiliations

- Birmingham Central Public Library
- Brother Let's Talk
- Children's Aid Society
- Children's Policy Council
- Community Foundation of Greater Birmingham
- Fire House Shelter
- Fresh Water Land Trust
- Healthcare Round Table
- Greater Shiloh Missionary Baptist Church
- JBS Mental Health Authority
- Jefferson County Department of Health
- Jefferson County Department of Roads and Transportation
- Mental Health Roundtable
- Roebuck Neighborhood Association
- St. Vincent's Health System Foundation, Forge Office
- St. Vincent's Health System

Strategic Issues

Jefferson County, Alabama

ASSESSMENT, VISIONING, AND PLANNING
COMMUNITY MATTERS
FOR A HEALTHY JEFFERSON COUNTY

Strategic Issue Selection

Following the completion of Phase III of the Mobilizing for Action through Planning and Partnerships (MAPP) process, the Community Matters Core Team reviewed the data arising from each of the individual assessments presented in this document to identify a preliminary list of 102 potential strategic issues from which to develop a community-wide strategic health plan. With the assistance of the UAB School of Public Health's Applied Evaluation and Assessment Center, the initial potential strategic issues list was reduced to 47 items through calculating frequency with which an issue was identified in the various focus groups, community conversations and open-ended survey results.

Using this list of 47 potential strategic issues, the Community Matters Community Health Assessment Key Issue Prioritization survey was created using Survey Monkey® and distributed to focus group and community conversation participants, members of the Community Matters Listserv, representatives of the local public health system and the general public. Recipients of the survey also received the executive summaries from each of the four assessments provided within this document. Recipients were asked to review the executive summaries and to consider the importance of each issue in the survey, availability of resources to address the issue, and the community's will to actively engage in resolving each issue in creating the prioritization.

From the results of the Community Matters Community Health Assessment Key Issues Prioritization survey, the Community Matters Core Team further reduced the list to 16 potential strategic issues for consideration and further prioritization by the Community Matters Strategic Issue final review group. This group was comprised of multi-sector community leaders and representatives, including members of the Health Action Partnership of Jefferson County Leadership Team. The Community Matters Strategic Issue final review group received the voting tool with the 16 potential strategic issues and the executive summaries from the four assessments prior to the September 11, 2019 final selection meeting. Participants were informed that between three and five strategic issues are recommended for community health strategic plans in a five-year implementation cycle. Following discussion of the data supporting the potential strategic issues and the availability of resources and will to address each issue, each participant was given 100 points to assign among the 16 items on the voting tool. The number of points provided the ranking of the strategic issues by each individual participant. Participants assigned points which were then combined through the multi-voting process to reveal the top five strategic issues for improving health in Jefferson County, Alabama. The selection of the final strategic issues for the community health strategic plan, the *Jefferson County Community Health Improvement Plan 2020 – 2024,* represents the completion of Phase IV of the MAPP process.

The final strategic issues provide the infrastructure for developing Phase V of the MAPP process: Formulate Goals and Strategies. These goals and strategies, along with the strategic issues will comprise Jefferson County's community health improvement plan, the *Jefferson County Community Health Improvement Plan 2020 – 2024*, beginning in 2020. The five strategic issues that will be addressed in the *Jefferson County Community Health Improvement Plan 2020 – 2024* are presented in the following table:

Final Strategic Issues for *2020-2024 Jefferson County Community Health Improvement Plan* by Rank:

Rank	Strategic Issue
1	Control Gun Violence and Improve Community Safety
2	Provide a Timely, Safe, Equitable and Well-Maintained Public Transportation System
3	Improve Mental Health Care Access and Utilization
4	Decrease Obesity
5	Advance Health Equity Through Equitable Policies and Access to Resources and Services

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